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NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

GUIDANCE REVIEW

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Statement of purpose :

Guidance Review is the bulletin of the Central Bureau of Educational and Vocational Guidance. It aims at meeting the need of professional workers in guidance all over the country for a medium of communication through which ideas and information about techniques, tools, programmes and research, as well as news about individuals and organizations, may be exchanged. The bulletin also aims at promoting understanding of guidance and awareness of its value among educationists.

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Manuscripts :

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VOCATIONAL TRAINING IN INDIA

*S. Abdul Qadir**

It is well recognised that of all the resources for development, perhaps the most fundamental for a developing country is its trained manpower. In India valuable experience in manpower planning has been gained in several fields over the first two Five-Year Plans. As compared with the First Plan (1951-56), the Second Plan (1956-61) presented problems of manpower planning on a much larger scale. To a considerable extent, profiting from the lessons of the Second Plan, steps were taken sufficiently in advance to secure trained personnel for the Third Plan (1961-66). In many fields, though by no means in all, training programmes which form an important and integral part of the Third Plan, are designed to produce trained workers for the still more intensive development envisaged in the Fourth and later Five-Year Plans. Steel plants and other major industrial projects have made it necessary for the country to undertake training programmes on a large scale, both within the country and abroad. In this venture, other countries have generously shared their experience and facilities.

Authorities responsible for vocational training

India being a vast country it is obvious that no single authority can undertake the responsibility for training the skilled personnel required to meet the needs of the huge nation building activity that is now afoot. This has, therefore, been a combined enterprise by the Central and State Governments as well as by industry in public and private sectors. Their efforts have resulted in the establishment of institutes of various types and programmes of apprenticeship training. The welfare and charitable organizations

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have also played their part by setting up training institutes and schools. Special training programmes have been undertaken to meet the technical personnel requirement of modern small scale industries (with an investment in fixed assets of less than Rs. 500,000), of handicrafts and also of traditional rural industries organized mostly on a cottage basis.

Vocational Training within the framework of General Education

It has been accepted that technical and vocational education must commence at appropriate levels at the school stage. It has been decided to convert all elementary schools (6-14, age group) to the basic pattern where the inculcation of basic skills is at the heart of the educational process. Apart from its educational value it provides excellent prevocational preparation. The progress towards basic education has, however, been slow on account of the dearth of properly trained teachers, lack of equipment, accommodation, adequate guiding literature, etc. Therefore, it has been decided that all schools should be oriented to the basic pattern in the meantime, which would mean, among other things, the introduction of craft work of a very simple kind in all elementary schools. The total number of elementary schools by the end of the Third Plan would be 4,72,700, of which 1,69,700 would be basic schools.

Youth Vocational Centres

It has been planned to introduce pre-vocational training at the middle school stage also. According to a scheme recently approved by the Government of India 65 Youth Vocational Centres will be established in the country during the last two years of the Third Plan period. The Centres are intended for children in the age group 11 to 14 years who for reasons of economic necessity or lack of aptitude are unable to continue their studies beyond the primary school stage. The proposed centres will be attached to existing educational institutions, particularly middle schools and high schools, and will impart both general education and vocational training. The programme in vocational training will consist of elementary skills in fitting, turning, sheet metal work, smithy, moulding, carpentry, etc. The training programme will be geared to the local employment opportunities and in particular will receive an agricultural bias in the rural and semi-urban areas. The scheme will be operated with financial assistance from the UNICEF to the extent of Rs. 24.41 lakhs and technical assistance from the I.L.O.

The different types of institutions which have come to be established at the secondary education level, both as a result of historical development and as part of planned effort, include (i) Technical High Schools, (ii) Junior Technical Schools and (iii) Technical stream of Multi-Purpose Schools.

Technical High Schools

In Technical High Schools, instruction is imparted to the students of standard VIII to XI in geometrical and machine drawing, workshop technology and elements of electrical and mechanical engineering. The objective of the curricular programme is to equip the student in a better way than is possible in the purely academic schools to pursue study in a college/polytechnic or to enter gainful employment in industry after a period of apprenticeship training. These are only in the States of Maharashtra and Gujarat.

Junior Technical Schools

The Junior Technical Schools are intended to provide diversification of educational opportunities at the post middle stage and at the same time imparting training which would enable the students to enter industries as workers or apprentices. Under the Second Plan 39 such schools were established. In the Third Plan, 71 more schools will be set up for the most part as adjuncts to polytechnics.

Technical Stream of Multipurpose Schools

The technical stream which is one of the several streams of education in multipurpose high schools, provides instruction in such technical subjects, as applied mathematics, geometrical drawings, elements of workshop technology and elements of electrical and mechanical engineering, in addition to the core subjects, viz. languages, science, mathematics and social studies. During the first two Plans, 2,115 multipurpose schools were established, of which those with the technical stream would number about 180. The programme for the Third Plan provides for strengthening of multipurpose schools already established and for setting up of 331 new schools.

Training of Craftsmen

Broadly speaking, there are two types of training for craftsmen :

(i) Institutional training imparted in institutions with workshop rhythm and factory conditions ; and

(ii) Apprenticeship training in industry.

Institutional form of training is imparted mainly through Industrial Training Institutes (I.T.Is) under the Craftsmen Training Scheme operated jointly by the Union Ministry of Labour and Employment and the State Governments. While the former is responsible for the laying down of policies, procedures, standards and for overall co-ordination of training programmes throughout the country, the latter are responsible for the day-to-day administration of the Industrial Training Institutes. The cost of training is shared by the Central and State Governments in the ratio of 60 : 40. The training is imparted in a large number of engineering and non-engineering trades, the period being 12 months in case of non-engineering trades and 18 months in the case of engineering trades, followed by six months inplant training in factories.

A very high priority has been given to the training of craftsmen during the Five Year Plans. At the beginning of the Second Five Year Plan, there were 59 Training Institutes with the seating capacity of 10,500. The number of institutes had increased to 167 by the end of Second Plan period, accounting for a total seating capacity of over 45,000. The development during the Third Plan envisages the setting up of 151 more Institutes. The total seating capacity for the 318 Institutes at the end of the Third Plan is estimated at over 1,06,000. It is proposed to train about 2,00,000 craftsmen by the end of the Third Plan. With a view to effecting maximum economy in equipment, building, etc. training programmes are conducted in two shifts. The total allocation of funds for the Craftsmen Training Schemes under the Third Plan is of the order of Rs. 450 million as against Rs. 130 million under the Second Plan.

National Council of Training in Vocational Trades

In the discharge of its responsibilities, the Central Government is advised by the National Council for Training in Vocational Trades. The National Council, a tripartite body, (i.e., consisting of representatives of employers, trade unions and the Government), advises the Central Government in the laying down of policies, prescription of syllabi, duration of courses, methods of training, etc. It also assists in conducting trade tests, and awards National Trade Certificates. The Council has also set up Trade Sub-committees consisting of experts in various trades drawn from industry, to keep under constant review the syllabi and content of training in each trade. These Sub-committees are affiliated to the National Council or the State Councils for Training in Vocational Trades, which are also tripartite in nature.

The training of craftsmen is also carried out by Ministries other than the Ministry of Labour and Employment. The Ministry of Defence and the Ministry of Railways have their own centres for training craftsmen.

Apprenticeship

Although certain industries in the public and private sectors have had well organised programmes for apprenticeship training on systematic and modern lines, it is only since the passing of the Apprentices Act in 1961 that apprenticeship training can be said to have been organised in the country on a national basis. The Act regulates the programmes of practical training in industry in such a way as to conform to standards, syllabi, period of training, etc. and ensures full utilisation of the facilities available in industry, for imparting practical training. It provides for full length apprenticeship scheme as well as short-term inplant training for persons undergoing training under the Craftsmen Training Scheme.

The Central Apprenticeship Council

Under the Act, the Central Apprenticeship Council under the chairmanship of the Union Minister for Labour and Employment was established in June 1962. This was followed by the setting up of a State Apprenticeship Council in each State. The Central Apprenticeship Adviser who is Secretary of the Central Apprenticeship Council is responsible for the implementation of the Act. The State Apprenticeship Advisers who are Secretaries of the respective State Apprenticeship Councils are responsible for implementation of the Act within their own States, in respect of establishments other than Central Government establishments and undertakings. So far provision has been made for the training of apprentices in 23 trades which are known as the designated trades.

Evening Classes for Industrial Workers

Along with expansion of facilities for the training of craftsmen in institutes, and through apprenticeship programmes it has been considered necessary to organise evening classes to improve the theoretical knowledge of existing industrial workers who enter the industry without any theoretical background. The course consists of instructions in workshop mathematics, reading of blue-prints, elementary theory and use of precision instruments. The scheme is operated in accordance with the standards laid down by the National Council of Training in Vocational Trades. The duration of the course is two years and classes are held in selected technical institutes or within the factory premises twice a week. Ten thousand additional seats are proposed to the 2,000 already existing during the Third Five Year Plan

Training for Village and Small Industries

With a view to supplementing the available training facilities for craftsmen who serve mostly the needs of large and medium-scale industries, special training facilities are also being provided for different village and small-scale industries, mainly in crafts not covered by the other scheme. For small scale industries, training facilities are being provided mostly for industrial management and for selected technical trades by the Central Small Industries Organisation of the Ministry of Commerce and Industry, through its Industrial Extension Service consisting of 16 Small Industries Service Institutes, some Branch Institutes and a number of Extension Centres. Industrial Management courses conducted so far have mainly covered broad aspects dealing with financial accounting, marketing, etc. With a view to giving more practical shape to these subjects and introducing items relevant to production management like reducing cost of manufacturing operations, eliminating wastes and ensuring optimum utilisation of production resources, industrial management courses have been revised to cover : (i) Industrial Management Appreciation Course having duration of 80 hours ; (ii) Production Management Course—50 hours ; and (iii) Specialised Courses on financial management and accounting, work study, general management, marketing, etc. All the officers engaged in the industrial management training have undergone a course of intensive applied management training and arrangements are also being made to provide inplant training in large undertakings, both in the private as well as public sectors. As regards training in technical trades, these cover such trades as heat treatment, electroplating, machine shop practice, foundry, tool room, joinery, shop practice, etc. Recently, a Technical Training Committee has been appointed to standardise and consolidate the quality of training of various technical courses all over the country. Special training facilities for workers are now also available in two proto-type Production and Training Centres, one of which has been set up with the assistance of the Government of the Federal Republic of Germany. A Small Industry Extension Training Institute has also been set up which is expected to arrange for specialised training courses for managers and private consultants.

For rural artisans, several State Governments have set up in selected areas 'cluster-type' training institutions, serving groups of villages, for providing courses in certain allied trades, such as blacksmithy, carpentry, etc., extending over a year or more with a view to training artisans in the maintenance and repair of agricultural implements and parts of heavy agricultural machinery, etc. Training facilities for rural artisans will also be available from peripatetic demonstration and training parties organised in rural areas by the State Governments. Besides these general training programmes, special schemes for training in spinning and weaving, village industries, coir industry, sericulture and handicrafts are being taken up as part of the development of these industries. For handicrafts, besides training in selected traditional crafts, training facilities are also provided in management of emporia and salesmanship.

Training of Technicians

Training of technicians who are above the level of skilled workers is provided through a network of 231 polytechnics with an annual admission capacity of over 30,830 spread over the entire country. In 1950 the number of such institutes was 86 with the admission capacity of 5,000- These institutes have been developed mostly for offering three-year diploma courses in basic fields namely civil, electrical and mechanical engineering. There are, however, institutions which offer courses in leather, textile, printing, mining and radio technology. The courses of study in various fields are laid down by the All India Council for Technical Education which advises Government on all aspects of the improvement of technical education and co ordinates its development. While a majority of the institutions are financed and managed by the Central and State Governments, there are others which have been estabilished by private agencies and universities. Private enterprise thus supplements in a large measure the efforts of the States. In order to ensure that the private institutions are administered on the right lines and maintain proper standards, governing bodies with representatives of Government and the All India Council have been set up for the administration and management of the affairs and finances of the institutions. The expansion programme under the Third Five Year Plan envisages raising the admission capacity to 50,000. The diploma holders are imparted practical training in the industrial concerns in the public and private sectors, railway workshops, defence organisations, power projects, transport and communication organisation, etc. The duration of the practical training varies from one to two years depending upon the particular field. A sandwich course of four years in which practical training in industry and institutional studies alternate, has been introduced at selected centres in co-operation with industry.

Training of Teaching Personnel

The expansion programme under the craftsmen training scheme, evening classes scheme and the training of apprentices in industry calls for competent and trained instructors in adequate numbers. It is estimated that 8,500 instructors will be needed to meet the requirements during the Third Plan period. These and other estimates of the requirements of trained personnel are based on the tentative perspective of the country's development over the next two decades. An attempt has already been made to work out in greater detail, the perspective plan in which the programme of expansion of trained personnel, particularly of the teaching personnel, would be undertaken long in advance of the requirements.

So far, seven special institutes have been set up for the training of instructors. The number of training places at these centres is 1,800 at present and will be 2,040 by the end of the Third Plan. The U.N. Special Fund has extended assistance to five of these institutes and the U.S.A.I.D. to one. The assistance includes trade experts for imparting training to masters who could train instructors in Industrial Training Institutes, and Senior Experts for organising and administering programmes for the training of instructors (for a period of 2-3 years), as well as equipment which cannot be procured locally. The Government of India provides Indian staff as understudies to the foreign experts and also buildings, equipment, etc. available locally. The programme is estimated to cost Rs. 65 million during the entire Plan period including the foreign assistance equivalent to Rs. 20 million.

Training of Supervisors

The initiative for starting organised training programmes for Supervisory Development was taken by T.W.I.* Centre at Bombay which was establishad in 1954 by the Ministry of Labour, Government of India, with the help of the Training Officers who in turn train the Supervisors in their organisations. It has so far trained officers throughout the country drawn from industries such as Textiles, Cement, Aluminium, Iron and Steel, Aircrafts and Government departments. The Ahmedabad Textile Industries Research Asso-cation and the South India Textile Research Association have also done considerable work in the field of supervisory training, particularly in Human Relations.

A very important role is being played by the National Productivity Council in supervisory development which is a part of their development programmes. This is being achieved through the programmes for the training of Trainers who are trained not only in supervisory development, but also in work study and other matters. Personnel officers, departmental heads, works managers, etc. are drawn from the industry and given training in supervisory development. When they go back to the industry, they conduct, the supervisory development programmes for the Foremen of their establishments. So far the Council has organised seven such courses in which 120 Senior Executives from the industry have been trained. The Council also organises in-company programmes for individual companies. Orientation programmes for workers are also conducted for the development of right attitudes and values towards work, productive frames for reference and correct appreciation of the objective and philosophy of industry.

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* Training Within Industry

Besides these, agencies sponsored by the Government and certain private companies also conduct programmes for supervisory development. The Artisan Training Centre, Ambarnath, under the Defence Ministry and the Central Training Institutes for Instructors at Calcutta and Bombay under the Directorate-General of Employment and Training, Ministry of Labour and Employment, have also programmes for the training of supervisors for training institutes. Big private firms such as the Tatas, the Lever Brothers, the Imperial Chemical Industries and Guest Keen & Williams conduct individual programmes in their own respective industries.

The National Productivity Team on Supervisory and Operative Training which toured U.S.A., West Germany and Japan in 1961 under the leadership of the author of this paper, has recommended the development of programmes for supervisory training in industry, both in private and public sectors, on a priority basis and with the co-operation and voluntary effort of industry. The U.N. Special Fund has made available the services of an expert to assist the team in the formulation of a comprehensive scheme in this respect.

Co-ordination of Vocational Training Programmes

As indicated earlier, the industrial undertakings in the public and private sectors which have their own arrangements for training generally plan their programmes on the basis of their individual requirements of trained personnel for further expansion, setting up of new industries, etc. The programmes of craftsmen training operated by the Government, being intended to meet the requirements of industry in general, are related to the needs of the employment market. Effective co-ordination of (a) vocational training with the needs of the employment market, and (b) of the activities of the authorities and bodies which give training, exists at the Central and local levels through the National and State Councils for Vocational Training.

These councils are composed of representatives of Central and State Ministries, employers' and workers' organisations, learned bodies and technical experts. This ensures full representation of all the important interests concerned with training. For expeditious consideration of all matters requiring its attention, the National Council has set up a Working Committee and four Sub-Committees. Three of them deal with Training Schemes for crafts instructors, craftsmen and apprentices, while the fourth deals with other miscellaneous training schemes. A Co-ordination Committee of the Council consisting of the representatives of the Central Ministries concerned has also been formed to study on a continuing basis the different training programmes already introduced or proposed for introduction with a view to establishing necessary co-ordination and preventing unnecessary overlapping. The Employment Service at the Centre and in the State also renders advice to the Councils in relating their training programmes to the needs of the employment market. In certain cases the training programmes are drawn up jointly with big establishments, such as Heavy Electricals, Bhopal.

The articulation of training programmes with the needs of the industry is being achieved through the Employment Market Information programme of the National Employment Service. Under this programme, information is collected on a periodical basis regarding employment changes, job vacancies unfilled and shortages of personnel in different occupations. This information collected from employers is studied in conjunction with the statistics gleaned from the daily traffic at the employment exchanges. Reports based on these studies are found to be useful in adjusting training programmes at area, State and all-India level. The Area Manpower Surveys proposed to be carried out under the auspices of the Institute of Applied Manpower Research will supplement the relevant data for use in relating training programmes to the actual needs of the area.

Conclusions

With the establishment of the Central Training Institutes for the Training of Instructors with the assistance from the U.N. Special Fund and its executive agency, namely the I.L.O., and also the U.S.A.I D, we are trying to solve our difficulties regarding Instructors for the Institutional Training. We will still be in difficulty regarding such equipment as is not readily available in our country.

We are trying to obtain some U.S. surplus equipment. The training of apprentices in industry under the Act as a national programme is still in its initial stages. The German Government has very kindly deputed Dr. H.K.W. Baritsch to study our requirements and programmes and prepare a plan for assistance in implementation. He has extensively toured the country and attended meetings with employers and others and has now made recommendations for the supply of experts and equipment to help us in the development of the programme. We are hoping to regulate the training of apprentices in industry on a sound basis with the assistance from the U.N. Special Fund and from the Federal Republic of Germany.

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SOME THOUGHTS ON THE CHOICE OF A CAREER BY GIRLS

*M.R. Verma**

In past generations the main duty of a woman was considered to be the bringing up of children. She generally contributed to the family income also through such activities as spinning and weaving, caring for the livestock and household work. It was considered outrageous to regard her as a career seeker outside the domestic domain.

But the present economic situation in the country is such that, even if it is not considered proper for women to step out into the world of work, or even if they themselves are reluctant to do so, the rising cost of living is bound to compel them to take to paid work. This change in economic conditions, together with rapid urbanisation resulting from the industrial revolution that is taking place in our country, has gone a long way in bringing about a corresponding change in the ideals and values of our people. Enlightened parents and husbands not only do not object to their daughters or wives taking up jobs but actually encourage them to do so. The economic pressure is so great that a career girl is most welcome as a bride.

Women on their part seem to be only too anxious to earn a living even though they may be happily married. Even children are not proving to be insurmountable obstacles to the employment of their mothers which shows that the combination of marriage and a career, although a very difficult one, is not altogether impossible.

Besides economic motives which hold good in case of most of the employed women, specially in case of those belonging to middle and lower middle classes, there are other factors too which make a woman think in terms of an occupation. As Padmini Sen Gupta says, "She is married at a later age today and often has to take up a career before marriage. Then she may be busy with her children for a few years after her marriage, but a limited family makes her maternal responsibilities come sooner to an end than did those of her mother and grand-mother. A longer span of life also makes it essential for a woman to seek work merely to allay her boredom if not for anything else." Besides, a natural craving for self-expression in the sphere in which she possesses a special talent or ability also makes her want to find an outlet through a suitable career. In a study made in India on a sample of 151 working women, Mrs. Hate found that 67% were forced to take up jobs due to financial need ; 5% chose service because they liked to work ; 5% because they desired to make good use of their time ; 4% because they thought of an occupation as a qualification ; 2% were reluctant to give up the profession they had followed ; and 1% had a desire to be economically independent.

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It has been noticed that in recent years there has been a steady growth in the number of women engaged in various occupations. As far back as 1945, the National Planning Committee found that out of a total female population of 180 million about 50 million were wage earners and that this number comprised nearly one third of the total number of employed persons. According to the census report (1951) approximately 65 lakh women are working in various capacities in industry, fields of commerce, insurance, money lending, banking and other financial business, health, education, public administration, domestic service, barber and beauty shops, laundry, hotels, recreation and welfare services, etc. Quite a large number of them are in professions such as medicine, arts, journalism, law, etc. The increase in the number employed seems to be more phenomenal in the fields of teaching, nursing and clerical work.

This distribution is an indication of the fact that a large number of employment opportunities are available to the women of our country. These opportunities are bound to multiply with the growth of industrialization, thus making the structure of the world of work more and more complex and baffling.

If girls are to make wise choices of careers out of the thousands that are before them, they should possess adequate information about the nature of work, training and other admission requirements, etc. of these occupations. Because of many technical considerations involved in the process of occupational choice they require help from trained persons. Hence, there is full justification for the teaching of occupational information to girls while they are yet in school. No agency is better equipped than the school for performing this function. Some people wrongly hypothesise that girls consider jobs just a way of marking time until they get married or start a family and therefore, it is unwise to waste time and energy on their occupational orientation. There is sufficient evidence to prove that if placed in a job that does not interfere with the efficient discharge of their domestic duties they tend to stay in it permanently.

Even granting that their assumption is right, we can see that a girl in high school does not face an "either/or" choice between marriage and a career. Several years may elapse before she gets married and the chances are that after marriage she may want to or have to work. The better prepared she is to earn a living before marriage, the better chances she will have to supplement the income of the family.

Thus, considered from all points of view the dissemination of occupational information to girls preparatory to their entering the employment market is of paramount importance. It must be admitted that the imparting of occupational information to girls is more difficult and complicated than in the case of boys because besides psychological factors, social, cultural and biological factors play a more important role in a girl's choice of an occupation. Hence, special consideration has got to be given to these factors, both in providing general occupational information as well as in counselling students individually. The following illustrations will make this point amply clear.

Some occupations are in dire need of trained persons for certain technical and scientific jobs but they are barred to women even if they satisfy all the requirements of the job, or if they are employed they are offered a salary lower than that of men for the same work and have less chances of further promotion. Girls need full information regarding such occupations before they plan their career.

It is also important for a girl to know whether the occupation she intends to enter involves working conditions that may be particularly unsuitable for women. For example, some jobs involve irregular hours, night duty, travel or living on the job premises.

Another vital point of consideration is whether the job she selects offers security of service and the facility of maternity leave to a married woman. In some occupations the service of a woman employee terminates after she is married ; in others she is required to resign if she is going to become a mother.

Again, some careers demand more than average physical energy and stamina. This may involve standing for long hours, lifting of heavy loads, covering long distances on foot or working in the open in inclement weather.

On the other hand there are some occupations which are easy to combine with marriage. They do not disrupt the family life of the woman employee and allow her sufficient free time to attend to her household routine. Such jobs are considered to be good choices for girls. Teaching, clerical and a number of operative jobs are among them. Even better choices are literary, musical and artistic jobs because they can be engaged in at or near one's home. In art and writing there are many freelance opportunities and one can adjust the time devoted to them according to one's convenience. Every girl needs to know fully about the types of jobs available to women before she comes to choose one for herself.

It will be observed that a majority of the factors discussed above are peculiar to occupational choices of girls. They make the problem of the choice of a career by girls very different from that of boys. Hence, the counsellors for girl students should be adequately informed and sensitive to these special factors. Special attention should be paid to the aspect of collecting, analyzing, filing, and disseminating occupational material especially suitable for girls.

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THE NEED FOR INTRODUCING NEW TYPE TESTS IN MATHEMATICS IN THE SECONDARY SCHOOL

*Jagdev Mohan**

The giant strides taken by some of the nations of the world in the field of science and technology are a tribute to their system of education which incorporates a scheme of examinations designed to draw the best out of its students. As a rising country of the East, India cannot afford to sit on the side-lines and be a silent spectator to this panorama of progress. Radical and speedy reforms of the existing educational system are urgently required if India is to acquire, and what is more important to retain, an honoured place in the cavalcade of advanced nations.

Examinations, in their present form are perhaps the worst feature of the Indian education system. It was over half a century ago that educationists in India began to find fault with them. During this period almost every committee or commission that has dealt with the subject has condemned this system. It has been variously described as "an enemy of the pupil", "an obstacle to education" "a glorification of memory at the expense of the rational and creative powers", "a presumptuous attempt to gauge unnecessarily the depth of human ignorance" and so on. Because of its many defects Indian educationists are naturally not very happy with the prevalent system, as is shown by the following quotation from a recent University Education Commission Report :—

"We are convinced that if we are to suggest one single reform in University Education, it should be that of examination. We advisedly say reform although we know in India as well as elsewhere in the world dissatisfaction with the examinations has been so keen that eminent educationists and important educational organisations have even advocated the abolition of the examinations. We do not share the extreme view and feel that examinations rightly designed and intelligently used can be a useful factor in the educational process. If examinations are necessary, a thorough reform of these is still more necessary......We suggest the introduction of such valid, reliable, adequate objective type examinations in the Universities (and schools) of India at the earliest possible time. Without this there is a danger that our education will fall into chaos''.

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What is true at the University level is even more true at the lower level of education. We have the same pressing problem from the top to the bottom, but in a more aggravated form at the lower rung of the educational ladder where less educated and less effectively trained teachers are employed. The lower the school level the more urgent the need of reforming the values of teaching through a change in emphasis and procedures of the examination system.

Let us discuss some aspects of examinations with reference to Mathematics. Traditionally, a mathematics test in secondary schools is considered to be a matter of solving problems or in geometry of proving theorems or making constructions. If a student can solve a few problems or prove a particular theorem, it is assumed that he has achieved the objectives of the course. Such tests, in mathematics are comparable to the usual essay type tests held in other subjects and a lot of what has been said for or against the latter is equally applicable to the former also. It is not possible to restate all the criticisms here, but the following remarks are pertinent in the context of our present endeavour to introduce new type tests in this subject.

In the traditional type of examinations some problems, intentionally or otherwise, generally creep into our papers in which the solution depends upon an unusual trick or device ; others may be obscurely worded. The test in such cases may prove to be a measure of persistence or ingenuity rather than mastery of concepts and techniques. A close perusal of examination papers in mathematics from any board or university can convince one of the truth of this remark.

Secondly, the usual misconception relating to examinations in mathematics is that they are easy to grade— 'a question is either right or wrong'. The error resulting in a wrong answer might be of a minor nature, such as a dropped sign, a radical miscarried, or a sign omitted or the error may be due to a complete lack of the grasp of the principles or techniques involved. Obviously in such cases the minor errors are penalized as much as the major ones. Thus a student who has mastered the material and also understands the principles and techniques involved but is careless, may get a lower grade than one who actually knows far less about the material but makes no errors on the few problems he is able to work out.

Under such conditions, it is possible for a candidate to be quite a good mathematician and even to show ample evidence of his ability in his paper and yet to secure no mark at all. A slight slip in calculation in any one of the answers would not only cancel the credit of a large number of correct computations, but would also invalidate the result of a perfect piece of mathematical reasoning. By adopting the "right or wrong" criterion of marking, such an examination can become fool proof only at the cost of becoming unjust.

It may however be contended that mathematical papers are not marked in that way. Credit is always given for answers that are partly correct. This is quite true but once we depart from the rigid right-wrong system of marking we open the "floodgates of personal vagaries and lose the benefit of a scale which its objective and invariable". Such a system of step marking thus brings in is trail the subjective judgment of the examiners marking the papers. Various studies of such variations have been made. Three such studies are reported below :

1. Hartog and Rhodes (2) report a study regarding the scores in Arithmetic papers. A paper of Arithmetic problems of the old type was sent to 10 examiners. Of the total of 15 marks, while one examiner gave 15, three gave 12, two gave 8—while two gave only 2 marks.

2. In a study reported by Wilder (3) fascimile reproductions of an actual examination paper in plane geometry were made and sent

to the geometry teachers of all large high schools in a certain section of the U.S.A., with the request that it be marked on a scale ranging from 0 to 10 . One hundred and sixteen papers were marked and returned. The lowest mark given was 28 and the highest was 92 on identical papers. The grades assigned on that paper were distributed as follows :—

Marks assigned.	No. of teachers.
above 90	2
81—90	19
71—80	40
61—70	35
5I—60	14
Below 51	6

3. In one such study conducted in India the investigator prepared and mimeographed an arithmetic test of seven examples. There was something wrong or incomplete in every answer. He submitted it to those present at a local meeting of secondary teachers, with instructions that each should mark it according to his own judgement. The scores assigned to it by several teachers ranged from 76 to 0.

"In view of such evidence, may not any student be called fortunate if all his teachers give him marks less than 20% above or below what he deserves ? Can we be sure that different university examiners will not disagree by at least 10% of the marks to be assigned to an average paper". (1)

Quite clearly the examiners in those cases marked on different principles. Each had his own scheme of scoring, each had his own scale of values. If all the examiners had been brought together to discuss the basis on which marks should be awarded and to agree upon a common procedure, the range of variability would have been narrowed. But it would not have been completely eliminated.

Though not many studies have been conducted in our schools, the situation in our schools speaks for itself.

A change in the current pattern of examination is further desired because of the need for persons with ability in the field of mathematics. A nation, like India, bent on making rapid technological advances and launching ambitious development schemes in social fields cannot afford to be mathematically stagnant. It is with this conviction that personal attention of the teachers of mathematics in Secondary Schools has been invited to this urgent problem of constructing new type tests in this subject for measuring the achievement of the student more accurately and efficiently.

References.

1. Ballard, *The New Examiner*, London : University of London Press, 1949.
2. Hartog and Rhodes, *An Examination of Examinations*, London : MacMillan & Co. Ltd., 1939.
3. Wilder, Improving Written Examinations. *Teaching*, 1953.

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THE FOREIGN SCENE IN GUIDANCE

Research in Vocational Development

In a recent review of the vocational development process, Garry Walz of the University of Michigan has discussed the growth of this 'young and vigorous' area, referring to more than 200 studies. Walz has traced the beginnings of vocational development investigations to Super's Career Pattern Study and has pointed out that in the short span of one decade investigations of vocational behaviour have moved from 'conceptually shallow trait and factor approaches' to 'fertile occupational models'. The most important characteristics of the newer conceptual approaches were (a) production of more hypothetical constructs (b) use of both psychodynamics and ego psychology and (c) preference for longitudinal research designs. The new approaches have led to the development of adequate statistical tools for career predictions, construction of both theoretical and operational definitions of vocational behaviour and development of comparable measures of vocational maturity at different age levels. Notable contributions made by Tiedman and his co-workers include an investigation of self-concepts of boys which demonstrated that whereas self-concepts about work values and interests were clarified as they moved from 9th grade to 12th grade, the interests stage ended by grade 10, and the work value stage extended to grade 12. The perception of aptitude even by able students was relatively poor.

* * * *

International Conference on Public Education recommends guidance for all young people

The 26th session of the International Conference on Public Education was convened in Geneva on the 1st July 1963. In its recommendation to the Ministries of Education on the organization of Educational and Vocational Guidance, while accepting the concept of guidance as a continuous process, the conference stressed that educational authorities should assume the primary responsibility for educational guidance, but for voctional guidance they should maintain liaison with the authorities responsible for labour, industry, social welfare, youth welfare or other services. The conference also recommended that (1) there should be a permanent advisory body on which all interested parties should be represented, (2) sufficient means should be available to allow the progressive extension of the guidance system to all young people, of all religions, in rural as well as urban areas and at all levels of education, (3) countries which do not yet have sufficient means to organize a generalized system of guidance should undertake the setting up of a certain number of pilot centres which could serve as models and which could be extended gradually to the whole country.

* * * *

Existentialist trend in philosophy of guidance

Reviewing researches done after 1960 on the theoretical foundations of guidance, Carrol Miller observes that on the level of philosophic enquiry, eclecticism appears to be less dominant than in the past, the trend being towards an interest in existentialism. The pioneers in the field of guidance had emphasized the individual's problem in his social setting. Their attempts to formulate a philosophy of personnel work had resulted in an eclectism compounded of realism, idealism, rationalism and experimentalism. The present tendency is either to ignore the social order as do the positivists or to reject it as is being done by existentialists. Researches on foundations have resulted in an existentialist stress on the concepts of responsibility and freedom and have put guidance on the side of individual self-realization. The thread of existentialist thinking is evident in the latest contribution of Rogers. On the matter of goals or purposes of the persons in therapy Rogers found a general pattern emerging that might be best described in the words of Kierkegaard 'to be that self which one truly is'.

* * *

Vocational training in Sweden

Vocational schools run both by the state and private industries are rapidly increasing in Sweden. They give practical training in almost all aspects of industry requiring semi-skilled and skilled know-how. Recently a number of incorporated workshops subsidized by the State have been established by certain industries who contract to provide skilled instruction in a speciality. These workshops emphasize practical projects but for more theoretical training there are smaller vocational and technical schools run by the state. Specialized technical schools admit employed students who seek a better theoretical background. Since certificates and diplomas are also awarded there is a great demand for such occupationally-oriented education. The state and the private agencies together are able to cater to the needs of only forty per cent of those seeking admission.

K.V. Nair
CBEVG

NEWS FROM HERE AND THERE

All-India Educational and Vocational Guidance Association

The eighth annual conference of the All-India Educational and Vocational Guidance Association was held at Allahabad from the 29th to 31st October, 1963.

Dr. B. Prasad, Vice-Chancellor, Allahabad University presided over the inaugural function. The presidential address was given by Dr. S.M. Mohsin, Professor of Psychology, Allahabad University who read a paper on "Discovery and Development of Talent".

The conference began with a general session for which the topic of discussion was "New horizons in guidance in the light of an objective look at the current state of guidance and testing in India." This was followed by small group discussions on "Guidance in Secondary Schools", "Problems of Guidance in Employment Exchanges", "Guidance of University Students," "Counselling of the Handicapped" and "Research in Guidance".

The second day's programme consisted of a general session on "Guidance in the National Emergency" followed by a session for adopting the reports of the small groups.

* * * *

Directorate-General of Employment and Training

Mr. G.E.T. Whiting, B.Sc., O.B.E., joined D.G.E. & T. as the I.L.O. Expert in Vocational Guidance in late September, 1963. Mr. Whiting has had some 30 years of experience in Vocational Guidance in U.K. and has held several responsible posts such as Head of the Vocational Guidance Department of the National Institute of Industrial Psychology, Regional Appointments Officer, South West Region of the Ministry of Labour, Chief Inspector and Training Officer of the Central Youth Employment Executive, etc. His mission is to advise the Government of India in the development of the Vocational Guidance Service.

* * * *

Dr. D.W. McElwain, Ph.D, the I.L.O. Expert in Aptitude Testing attached to D.G.E. & T., left the country in November 1963 after completing his mission. As a result of the pilot project conducted under his guidance, aptitude tests will be used for selection at Industrial Training Institutes in an increasing measure.

* * * *

Manpower Shortages : Reports received from employers have indicated that they generally experience occupational shortages in respect of professional and technical personnel and craftsmen. Lack of suitable persons in these occupational fields results in a number of vacancies remaining unfilled. A list of such shortage occupations is given below :-

1. Civil, Mechanical and Electrical Engineers
2. Overseers and Surveyors
3. Veterinary Surgeons
4. Physicians and Surgeons
5. General Nurses and Midwives
6. Lady Health Visitors
7. Pharmacists
8. Sanitary Inspectors
9. Accountants
10. Draughtsmen Civil
11. Stenographers
12. Moulders, Fitters, Turners, Mechanics (General), Electricians

* * * *

V.G. Programme at Employment Exchanges : Vocational Guidance and Employment Counselling Programme is conducted at the Employment Exchanges through special sections known as "Vocational Guidance Sections". At present there are 115 Employment Exchanges in the country where such special guidance facilities are available.

Vocational Guidance service is also rendered at University Employment Information and Guidance Bureaus which by now have been set up in 20 Universities.

* * * *

Delhi

A brief course on Marriage and Family Living is being offered for the first time to college students in Delhi. The fortunate students belong to St. Stephen's College, and the course has been organized by the Delhi branch of the Association for Moral and Social Hygiene in India CBEVG has been associated with organization of this course.

The Delhi Educational and Vocational Guidance Association organized a group discussion on "Guidance Problems in Delhi Schools" on the 14th October, 1963. Mr. G.E. Whiting and Dr. D.W. McElwain I.L.O. experts attached to the Directorate-General of Employment and Training and some counsellors from the local schools initiated the discussion.

At a meeting held on the 6th December, 1963, Dr. Shib K. Mitra, Head of the Department of Psychological Foundations, National Institute of Education, gave his views on the need for guidance in the country to the members of the association.

* * * *

Madhya Pradesh

Shri N.C.S. Rao, Principal of the College of Educational Psychology and Guidance, Jabalpur has gone to the United States for higher studies. Dr. S.K. Dani has been appointed as the Principal in his place.

The State Vocational Guidance Bureau conducted a three-day Workshop on Maintenance and Use of Cumulative Record Forms at Raipur. Twenty-two teachers from the local schools attended the Workshop.

* * * *

Maharashtra

The seventh diploma course in Vocational Guidance of the Institute of Vocational Guidance and Selection commenced in July 1963 with ten trainees. The course, which is of one year's duration, is intended for both teacher-counsellors as well as full-time counsellors.

The Institute also conducted its nineteenth Career-Masters Course in May 1963. This is a three-week course conducted twice each year-during the summer vacation for mofussil teachers and during the school year for local teachers.

* * * *

Mysore

In the month of June-July 1963, the State Bureau of Educational and Vocational Guidance, Bangalore conducted two short term training courses, one for the local secondary school teachers and the other for the teacher-trainees of the Vijaya Teachers College, Bangalore.

* * * *

Uttar Pradesh

Workers in the field of guidance had long felt the need for forming guidance associations at the State and District levels. The Uttar Pradesh Educational and Vocational Guidance Association was formally inaugurated by Dr. E.E. Miller, noted American Psychologist on 11th August, 1963. Dr. C.M. Bhatia has been elected President and Shri S.K. Liddle, Secretary of the Association.

H. M. Kanade
CBEVG

ABOUT OURSELVES

We congratulate Shri B.D. Misra, Librarian and Shri P.C. Bansal, Testing Assistant on their new appointments as Librarian, Regional Training College, Ajmer and Junior Psychologist in the Ministry of Defence, respectively. We welcome Shri Suresh Chandra who has as joined Testing Assistant.

We also congratulate Km. S. Kanta, Steno-typist who has left to join the NCERT office as Senior Stenographer, and welcome Shri H.O. Tiwari who has joined us as Junior Stenographer.

Smt. C. Dhar, Counsellor, has resumed her duties in the Bureau after completing the Research Methodology Course conducted by the National Institute of Education.

* * *

Km. Janak Sethi, Counsellor and Km. S. Qayoom, Technical Assistant, served as resource persons in two seminars on "Educational and Vocational Guidance with special reference to careers in the Army, Navy and Air Force" organized at Gurdaspur and Kulu respectively by the Extension Services Department of the Post-Gradute Training College, Dharmsala. Shri L.C. Singh, Counsellor, gave talks in the Training Course in Guidance for Teachers, organized by the State College of Education, Patiala.

* * *

Mr. G. Whiting, ILO Expert on Vocational Guidance to the DGE & T ; Mr. Keat Lim Foo, Asst. Labour Commissioner, Malaya ; Prof. Ishii, Head of the Department of Education, Kyushu University, Japan ; Shri T. Khatri, Senior Psychologist, B.M. Institute, Ahmedabad ; several psychologists who were attending the Indian Science Congress ; readers and lecturers from the Regional Training Colleges under the NCERT, and chairmen and secretaries of boards of secondary education, visited the Bureau for discussion with staff members.

The Bureau organized a 'National Seminar on Guidance in Teacher Education' at Udaipur from October 18th to 23rd, 1963. Nineteen participants from Teachers Training Colleges and University Departments of Education attended the seminar. Dr. Perin H. Mehta, and Shri P.L Shrimali, Principal, Vidya Bhavan Teachers Training College, Udaipur served as Director and Jt. Director respectively. Shri L.C. Singh, Counsellor and Shri P. K. Rohila, Research Assistant, assisted the Director.

* * * *

Dr. Perin H. Mehta and Km. K. Wadia, Counsellor participated in the eighth conference of the All India Educational and Vocational Guidance Association held at Allahabad from the 29th to 31st October, 1963.

H.M. Kanade
CBEVG

Guidance Review
Vol. 2, No. 1.

BOOK REVIEW

GUIDANCE IN EDUCATION, by Srinibas Bhattacharya. Bombay : Asia Publishing House, 1963. 223 pp. Rs. 18.

Professional workers in the field of guidance, particularly those responsible for the training of guidance personnel, have long been conscious of the need for a good general book on guidance written by an Indian with experience and knowledge of the special issues and problems in the field.

"Guidance in Education" by Srinibas Bhattacharya is no doubt intended to be just such a book since the author states in his preface that he has made "an attempt to study the different aspects of guidance with special referenc to the present situation in Indian education". However even a very casual reading of the book reveals that it is the work of a neophyte—the writer is neither one who knows what the significant developments, issues and needs in the field are nor does he give any evidence of a deep scholarly knowledge of the subject. In fact judging from the bibliography, which consists of only eleven titles directly related to work in the field out of a total of seventy, the author's acquaintance with the literature in the field is rather meagre.

The title of the book, too, is a misnomer since the author has made no attempt to approach his subject from the viewpoint of educational philosophy and purposes nor does he deal with the challenge to guidance workers of relating the guidance programme to the total school programme both curricular and extra-curricular. There is also a surprising lack of reference to the roles of the teacher and the principal except for a very brief and vague allusion on page 118 where it is stated that "the joint effort of the headmaster, other members of the staff and the teacher-counsellor are required for a successful programme of educational and vocational guidance in school."

By stating in his preface that he has dealt with (i) the philosophical basis of guidance (ii) the scientific basis of guidance and (iii) practical aspects of guidance, the author has promised the reader more than he can deliver.

Though Part I is entitled the "Philosophical Basis of Guidance" the author has made no attempt to emphasize the "why" of guidance—the theoretical and philosophical concepts underlying guidance. Part II the "Scientific Basis of Guidance" is devoted exclusively to the research work done by the author on the development of measures of interest and persistence for his Ph. D. degree. While there can be no doubt regarding the utility of such tools for guidance purposes, one cannot help wondering what purpose the author had in mind in reproducing the thesis in its entirety. Then too, since no attempt has been made to indicate the significance of these instruments for guidance nor to relate the content of this section to that of the sections which precede and follow, the title of this section "Scientific Basis of Guidance" appears to be misleading and inappropriate. The content too is unsuitable for a book of this nature and would better have been left out.

Part III "Practical Aspects of Guidance" consists of nine chapters—dealing with a miscellaneous assortment of topics—"Techniques of Data Collection", "Principles of Guidance Testing" "Occupational Information" etc. While the titles of the chapters are familiar enough to most workers in the field and are those which appear in any standard text on guidance, one cannot say the same about the way in which the material has been organized nor about the content of the various chapters, in both of which the author's approach appears to be quite unorthodox and even whimsical at times.

While the organization of the material is to some extent a matter of personal preference, the reader has a right to expect some degree of logical sequence or continuity in the presentation, However, the impression that is created as one reads this book is one of complete confusion and disjointedness. The contents of many of the chapters do not bear much resemblance to the titles of the chapters and some of the chapter titles are in no way related to the titles of the "Parts". For example, in Chapter XVI entitled "Typical Cases of Guidance" one expects to find records of real or hypothetical cases of student problems. Instead one is subjected to a naive discussion on such topics as child guidance, causes of maladjustment, establishing and organizing a child guidance clinic, etc. Similarly, Chapter XVIII is entitled "Procedures of Educational Guidance", however to one's surprise the author opens the chapter with a discussion of the organization of guidance services, followed by extremely brief and unenlightening accounts of the various activities engaged in by a teacher-counsellor, and then switches over again to the opening topic, namely, organization of guidance services.

The author's treatment of the subject-matter too reveals a serious lack of knowledge and insight into the philosophy and concepts underlying guidance practices. His discussions of such significant aspects of the counsellor's work as collection and recording of data, administration and interpretation of psychological tests, dissemination of occupational information and counselling reveal an ignorance of modern view points and developments in the field. Then too, not only is the author's discussion of guidance techniques (Chapter XIV) such as rating scales, questionnaires, fact-finding interviews, etc , too sketchy, vague and even misleading at times but there has been no attempt to relate these discussions to the actual work of the counsellor. In Chapter XV "Principles of Guidance Testing" the author has devoted almost half the chapter to a theoretical discussion of various types of tests but there is no mention of such essential practical aspects of the counsellor's work as the selection of tests, the analysis and integration of test scores with other data about the pupil or the communication of test results to pupils, teachers and parents.

Counselling, which is the heart of the guidance programme, has been cavalierly dismissed by the author in a few short paragraphs. It is true that in Chapter III one finds several paragraphs with headings such as "Counselling at the Elementary School Level". "Counselling at the Secondary School," "Counselling the New Students on Entrance into the School" and "Counselling Entrance into Vocation" ; however, any resemblance between actual counselling theory or practice and what the author discusses in these brief paragraphs is purely accidental.

In addition to some of the major errors, in-consistencies and inaccuracies in the content pointed out above, there are glaring mistakes in the mechanics of the language such as poor spelling, wrong use of punctuation, badly constructed sentences and ambiguous statements. The author is also guilty of having done little or no proof reading.

In view of its obvious shortcomings, the book cannot fulfil the purpose for which it is intended by the author i.e. "serve as a handbook for all the workers in the field".

Khorshed Wadia*

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Guidance Review
Vol. 2, No. 1.

TEST REVIEW

Interest Inventory (Adapted from E.K. Strong's Vocational Interest Blank*) High School level ; 14 occupational scales ; printed report ; unpriced ; time 55 to 60 mins ; V.G. Jhingran, Head of the Dept. of Psychology, Dharma Samaj Teachers Training College, Aligarh.

The Interest Inventory is a Hindi adaptation of Strong's Vocational Interest Blank (1943), revised form M for use in Indian situations. The author deserves credit for developing a tool to assess the interests of school children, which is virtually an unexplored field as yet in our country.

The inventory includes 400 items classified into eight parts—Occupations ; School subjects ; Amusements ; Activities ; Peculiarities of People ; Comparison of Interest between two items ; and Rating of Present Abilities and Characteristics. The number of items in the respective parts of the inventory is not exactly the same as in the original nor have all the items of the original version been retained ; eighty-nine items have been constructed afresh to replace those considered unsuitable. The items appear to be quite suitable for Indian children. The sampling for standardisation of the test does not seem to have been carefully done, but under the limitations faced by the author this was perhaps the utmost which was possible.

The procedures for scoring and weighting of items remain the same as in the original. Weights have been assigned to the three possible responses on the basis of the percentage deviations or responses of the criterion-group from those of men-in-general. The score of an individual on a particular scale is the algebraic sum of weights obtained by him on all the 400 items. Fourteen scales have been developed—legal, engineering, medical, (Allopaths, Homeopaths and Vaidays), teaching (Junior and Senior), journalism, clerical, industrial, business, unskilled labour, pupil teachers and medical students. As these are the occupations most frequently chosen by students, the inventory will provide very useful information for the guidance of school pupils. However, it is felt that scales for a number of other occupations such as policeman, public administrator, minister (political leader), accountant, life insurance salesman, advertising man, chemist, scientist, army officer etc. would widen the scope of this instrument and make it more valuable tool for counsellor.

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* This project was undertaken in 1956-57 under the Ministry of Education's Scheme of Grant-in-aid for Research in Problems of Education.

The reliabilities of the scales are quite satisfactory and range from .58 to .95. For validation purposes, the test was administered to 73 graduates whose vocational decisions made after ten months were compared with their test score. It was found that 83% of them had selected the occupation in which they scored highest or second highest. Further research is needed for establishing the validity of the scale.

The manual gives standard score norms, percentiles and ratings. However the standard score norms with mean 50 and standard deviation of 10, are not of much significance as distributions of scores based on samples of 50-60 can hardly be normal. Normalised T-score norms would have been better. The seven-point-rating scale for use with layman will certainly prove helpful to the counsellor.

The manual also provides some interesting data on similarity of interests between men of different occupations and the 'likes' and 'dislikes' above 80% level of various occupational groups. The manual makes no mention of safeguards against the error of interpreting interest measures as predictors of probable success in training or in an occupation.

The format and the get-up of the inventory need to be improved. The different parts should be on different pages and the instructions for each part should be in bold print, so as to make administration easier.

The Strong Blank was the forerunner of the present-day interest tests and inventories in the U.S.A. The present Hindi adaptation represents again the first attempt in our country, work having been started on it as early as 1956. Such a tool is widely needed in the vocational counselling situation and it is hoped that it will soon become popular with vocational counsellors.

A. Sharma*

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ABSTRACTS

Sutherland Miller, Jr., Relationship of Personality to Occupation, Setting, and Function, *Journal of Counseling Psychology*, Vol. 9, No. 2, 1962. pp. 115-121.

The present study seeks to investigate the relationship of personality to occupation, setting, and function. The subjects were 50 YMCA boys workers, 50 YMCA business secretaries and 50 controllers from business firms. These three groups were so selected that two groups (boys worker and business secretaries, YMCA) represented similar settings i.e. social service but different functions i.e. planning and leading youth activities vs maintaining business whereas two groups (YMCA business secretaries and controllers) had similar functions i.e. maintaining business but different setting i.e. social services vs seeking financial gain.

To test the general hypotheses that there are personality differences between people in different occupations, 18 variables were studied by using a biographical questionnaire, self-ratings, Social Introversion and Prejudice Scales of MMPI, and various scales on Edward Personal Preference Schedule.

On these 13 personality characteristics reflecting value differences between the settings there were 9 significant differences. The following conclusions were drawn from the data obtained : occupational groups differ on personality variables that appear to be relevant to the characteristics of the occupation ; setting is more important than functions ; amount of time spent in the occupation had little relationship to personality variables in this study.

* * * *

Thomas W. Mahan, Jr., Unique Aspects of the Low Ability Student : A Challenge to Counseling, *Journal of Counseling Psychology*, Vol. 10, No 1, 1. 63, pp. 78-82

The purpose of the present study was to test the hypothesis that (i) pupils of below average measured ability (IQ of 90 or below) constitute a population that is significantly different in non-intellective areas from youngsters of average, above average and superior ability and (ii) these latter groups form a relatively homogeneous population on the following three measures : (a) school performance in achievement, discipline and social isolation (b) perception of self-adequacy as a student (c) relationship of perceived self as a student to the school's modal ideal. For the first measure teacher rating was used and for the last two a Q-sort technique was applied.

The subjects were 221 eighth grade pupils from three different schools, who were classified into four IQ groups : Group I—IQ 120 and above ; Group II—IQ between 111-120 ; Group III—IQ between 91-110 ; Group IV—IQ 90 or below. These four groups were compared on the three measures.

The results were in general agreement with the hypothesis. Low ability pupils were found to differ significantly from others in : inadequacy of school performance as reported by teachers ; correlation between self as pupil and self as ideal pupil ; correlation between self as pupil and the school's modal ideal pupil concept . No significant differences were found among the other three groups.

* * * *

Joseph P. Rice Jr., A Comparative Study of Academic Interest Patterns Among Selected Groups of Exceptional and Normal Intermediate Children, *California Journal of Educational Research*, Vol. XVI, No. 3, May 1963, pp. 131-137.

In this study academic interest patterns of children from grades 4 through 6 with different ability levels were compared. Approximately 30 pupils were randomly selected from each of the following academic groups (1) gifted classes (2) pupils whose school grades were high (3) pupils with average school grades (4) pupils with below average grades and (5) educable mentally retarded. The criteria used to group these pupils were IQ, scores on achievement tests, past academic performance and teacher judgement.

Nine interest areas (reading, class activity, arithmetic, science writing, music, art, physical activity and social studies) were studied through teachers' ratings of pupils on a three point scale i.e. high, average and low. The techniques used were observation and interview.

Teachers' rankings show that highly talented pupils tended to display more interest in academic areas, particularly reading, science and arithmetic, while the less talented children displayed more interest in non-academic areas such as class activity, physical activity, art, music. Gifted pupils were ranked as most interested in reading and least interested in social studies.

The following generalizations could be inferred from this study: each group seems to be unique in its particular interest patterns; gifted pupil's interests differ most from those of other groups; and the interests of average and less talented pupils are more closely related than the interests of gifted and more talented pupils.

Sayyara Qayoom
CBEVG

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QUARTERLY BULLETIN OF THE CENTRAL BUREAU OF EDUCATIONAL AND VOCATIONAL GUIDANCE

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GUIDANCE REVIEW

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Statement of purpose :

Guidance Review is the bulletin of the Central Bureau of Educational and Vocational Guidance. It aims at meeting the need of professional workers in guidance all over the country for a medium of communication through which ideas and information about techniques, tools, programmes and research, as well as news about individuals and organizations, may be exchanged. The bulletin also aims at promoting understanding of guidance and awareness of its value among educationists.

Published quarterly in January, April, July and October. GUIDANCE REVIEW is sent free for a period of one year to counsellors, career masters, research workers and other individuals or agencies in the field of guidance as well as to training colleges and university departments of education and of psychology.

Manuscripts :

The editors welcome original manuscripts on matters of interest to guidance personnel. The types of material desired are : articles, descriptions and evaluations of guidance programmes, reports of completed research, notes on current research, reviews of books, pamphlets, tests and visual aids abstracts, and news items, Indian and foreign.

Manuscripts should be typewritten double-spaced, on one side of the paper, and sent to the Editors, GUIDANCE REVIEW, CBEVG, 33, Chhatra Marg, Delhi-6. Twenty five reprints are supplied free to contributors of articles.

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VALEDICTORY ADDRESS FIFTH DIPLOMA COURSE

*V.K.R.V. Rao**

Shri Raja Roy Singh, Dr. Mehta and friends,

I am very grateful to Shri Raja Roy Singh, Joint Director of the National Council of Educational Research and Training, for his very warm welcome. I would like to tell him that I deeply appreciate his kind words regarding the work that I am doing in the Planning Commission. Whether I will succeed in getting something done or not, I do not know, but I am certainly much interested in the subject. As one who has been concerned with teaching for more than 30 years, nothing is more exciting to me than work in the field of education. I am sure that with the help and cooperation of people like Shri Raja Roy Singh and others, I shall be able to make some small contribution to the solution of the problems of education in this country.

I have heard much about educational and vocational guidance and sometimes I have talked about it ; there is no doubt that it has a tremendous influence in foreign countries. When I was in London, I was surprised to learn that all children in England are, as it were, classified according to ability at the age of 10 or 11. A large number of them go to the grammar schools and a majority of the others go to secondary modern schools. Some kind of tests are given. They also have essays and interviews. Through these tests the children, at the age of 10 or 11 years, are put in groups. I asked whether this did not create an inferiority complex, especially if the children happen to be staying in the same neighbourhood. I was told that I was quite right, and they were worried about this problem, which was worse if it happened in the same family : a brother might be chosen for the grammar school and the sister may be chosen for the secondary school. Further they were also a little worried about this classification of children at such an early age. Hence there was a provision for rectification at a later stage if it was found that some children had turned out to be better than they were believed to be earlier. They are then sent to the grammar school or the secondary school of education.

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I was deeply impressed by this system which has been in existence in England for many years. The number of children who have been subjected to this process is very, very large. I could not help wondering about the large numbers which would be involved if the same system were adopted in India.

The question of advising children regarding choice of courses has become a very important one. Only this morning I was inaugurating a conference of college principals, the first ever in this country, by the University Grants Commission, to consider the problems of college education and we were told that the expansion in college education was taking place at the rate of 10% a year. We expect one lakh students to join the colleges every year. Of these 50% will fail. If you take the statistics of failures, the percentage of failures in B.A., B.Sc. and B.Com. is betwen 50% to 54%. Of those who pass the arts courses and commerce courses about 70% get a IIIrd class, while about 60% get a third class in the science courses. Hence it would mean that we admit 1,00,000 boys and girls every year to colleges and out of them 50,000 fail while 30,000 secure third class. This is something which no country in the world, which has any intellingence and talks of planning, should tolerate. This is something on which we ought to have more discussion and thinking than, I am afraid, has been done in this country so far. I hope the National Council of Educational Research and Training will conduct some studies and supply us with concrete data which will enable us to determine why this is happening.

Now, obviously one of the reasons why this happens, is that boys who get into colleges are not fit to do so. This idea that one is not fit for something does not imply that one is inferior. But if you tell a student that he is not fit to join a particular subject, or not fit to join a college he immediately thinks that we are either trying to insult him or are against him becuase of his caste, socio-economic status, language or something else. The idea that there is such a thing as fitness, in the sense that a square peg has to be placed in a square hole and a round peg has to be placed in a round hole, is an elementary concept which lies at the root of all efficiency, selection and guidance. Even this very elementary concept is not yet understood in this country and you can see that a large number of the pupils who join the colleges, really have no interest in studies; but nobody advises or counsels them. Therefore, you have a tremendous wastage of material.

You will find very often that parents try to fulfil in their children their own thwarted ambitions, their own unfulfilled desires. You will find this very common and I know of many instances from my own personal experience. Quite often a father advises his son to become an engineer, even though the boy would make a good physicist or chemist, just because of economic incentive. The boy may be told that from the career point of view if he becomes an engineer he would start on Rs. 600/- or Rs. 700/- whereas if he took to Physics or Chemistry, he would get a start of Rs. 300/- or Rs. 400/- only. Naturally, the boy's father is interested and the boy too is impressed and even if he does not really want to be an engineer he goes and joins an institute of technology. He is able to pass the examination because he is a brilliant boy. But he becomes an engineer, with no interest in the subject. If, however, he had gone in for Physics or Chemistry, he might have made tremendous contributions to the development of knowledge in this subject. The most profitable job is not necessarily the best job for a boy. It is more important to find out what the boy is interested in and whether or not he has the ability required for a particular type of work.

But how does one find this out ? I have seen a large number of tests, but have we come to a stage when we are in a position to say precisely what a particular man is interested in ? How far can you assist by way of educational and vocational guidance, and at what stage is this advice or counselling most necessary ? Then again you must remember that your methods will vary from one stage to another. The counselling that you give at the age of 10 or 11 years would be of a different character from the counselling that you will give to a boy at the age of 15 or 16 years when he passes his 11th class and has to make up his mind whether to join a Polytechnic or a commercial

School or an Agricultural School or something else. If he leaves school after the VIII class he decides whether he wants to go to a farm or join a Technical Training Institute or something else. After passing the higher secondary examination he decides what subjects he should take up at the university. Suppose he got distinction or above 60% marks each in Physics, Chemistry, Biology, and Mathematics. What subjects should he choose ? What advice should be given to him ? Would it be on the basis of school marks alone ? Suppose he got 60% in Physics and 59% in Chemistry, should he choose Physics ? Or if he got 62% in Mathematics, should he choose Mathematics ? Are there any special tests for this purpose ? I know of no university which has tests for these things. I don't think they even interview students—admissions are made only on the basis of school marks. If you have above 60%, well and good but if you have got 58% you will not get admission.

Admissions should be made on the basis of interests and abilities and not mechanically on the basis of marks alone. Before we actually start any programmes of gudiance we need to do much more research. I think it is very important to conduct studies in a number of places to find out at what age, which type of counselling becomes really useful and necessary in India. You need also to conduct follow up studies to determine whether the guidance you have given is appropriate. We also need to develop some kind of tools to find out which students should take up the agriculture stream in the multipurpose school or the technology stream or any one of the seven different streams offered. You need, therefore, a great deal of case study and basic research material, basic data collected from all over the country. You also need to get good instructional material on the basis of which you can transmit the knowledge to your trainees. The knowledge of methods of guidance must be capable of transmission. Since we have about 200 secondary training colleges in our country and each of these colleges must be handling at least about 20 or 30 schools, it should not be difficult to conduct a research project covering all the 200 secondary training colleges. I think this needs to be done as it is very important to know which course of study a child should take up.

I, therefore, feel that the idea of providing educational and vocational guidance to students is an extremely good one. Our students are facing very many problems to-day. When a rural boy comes to an urbon area, when a boy from one region moves to another region, when a girl who has never been to a coeducational school before is sent to one—all these persons need help. In all such cases you can explore the students' personality, you can find out the students' fears, doubts and frustrations and offer some assistance to them in handling their problems.

I would like to say that this is a very important field, which is as yet very little advanced in our country. We hardly give any guidance to our students either at school or at college level regarding what they should do. A miserable sum of Rs. 15 or 20 lacs is provided for guidance programmes in the schools in the education budget during the Third Plan period. There are State Bureaus and occasionally they hold seminars, workshops and valedictory functions, but this is not enough. This country must provide for guidance in a much bigger way, because if the subject can be developed it will save this country an enormous amount of economic waste. The Delhi University Alumni survey shows that one-third of the students who graduated did not get guidance. A new report has just been published on the pattern of graduate unemployment, this shows that 50% of the graduates are dissatisfied with their jobs. I am quite certain the actual figure is higher. But at least 50% are dissatisfied in their jobs ; all this shows that there has not been enough preparation.

Now there is no doubt in my mind that there is a great deal of educational wastage in this country to-day. If you regard the money spent on education in India at all stages as an investment, it is not a very profitable investment in many cases. If we apply the same criteria as we apply to industrial companies or factories or for other business establishments we will find that education is a very, very bad business, if you look at it from the point of view of investment. I say this because now our Ministry is talking a great deal about educational investment. If we want an educational investment, we should apply the principles of investment to education ; these are quality, efficiency, acceptability, output and the consumer's satisfaction. Now I have no doubt in my mind, there are many reasons for this waste such as bad laboratories, bad libraries, bad buildings and poor salaries. All that is true, but I have no doubt that one major reason for educational waste in this country is the lack of educational and vocational guidance. This is an important reason why our system fails.

I think guidance is an extremely important subject which has to be dealt with in a much bigger and more fundamental way than it has been dealt with so far. And I say the most important things that need to be done are an extensive programme of research and training. Unless we have an extensive programme of training of vocational counsellors, we are hardly going to make any impression. I think, last year there were 20 trainees, this year there are 15 trainees, the year before there were 10 trainees. But this is not enough, we need to have large numbers of trained guidance personnel. As far as the college stage is concerned, my own feeling is that the college teachers should give much more guidance and assistance to students in the choice of their subjects. For the first 15 days, I think, a boy should be allowed to sit in any class and at the end of that period he should be interviewed by his teacher ; this will mean time, and people will say this is all a waste of time because an educationist thinks that education is being imparted only when he is lecturing and the unfortunate student is listening or not listening, as the case may be. However the teachers will need to have some training for this kind of work. I think your three week courses should prove useful to them. Even if a professor is able to spend half an hour talking to a student about his choice of subjects, the boy or girl will be in a much better position to make up his mind regarding the subjects he should take up than he was before the interview.

I think it would be a very good idea if the National Institute could hold a workshop for college principals and professors at which some of these things could be discussed and they could be made to realize how harmful some of these rules, which restrict the freedom of students to change their subjects after a period of three months or six months, are and the necessity for flexibility and freedom of choice. I feel one of the most useful functions that the Central Bureau can perform is to educate the educationist and the public too and make them aware of the philosophy of guidance. The reason why I accepted Dr. Mehta's invitation to speak was not only that I wanted to come back to the University atmosphere for a while but because this is a subject in which I am deeply interested. It is one of my functions to see that the money.

spent on education is not wasted. Our resources are limited and we cannot afford to let them be badly utilized. I feel that educational and vocational guidance has an important role to play in the conservation of human resources. Therefore, we should do all we can to promote guidance and put this movement on a sound basis by undertaking the necessary research and by conducting training programmes on a much larger scale than we are doing at present. Only then can we have a vast programme, not a programme for 20 or 30 schools, but a vast programme of educational and vocational guidance for the country as a whole. I believe that only in this way can we help the country to utilize its financial resources effectively and prevent the present wastage of human material. At the same time we can give a sense of satisfaction and fulfilment to the very, very large numbers of young men and women who pass out from our schools and our colleges. Thank you.

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EXTRAVERSION—INTROVERSION AND RIGIDITY OF VOCATIONAL ASPIRATIONS

*A.K. Sinha, M.S. Prasad, R.P. Madhukar**

A relationship has been found to exist between some aspects of occupational goals and occupational possibilities on the one hand and the quality of the individual's cognitive functioning on the other. Getzels and Jackson (3) found that high creativity adolescents as compared to the high I.Q. adolescents have wider occupational interests, that they mention a larger number of occupations when asked about their occupational likings, that they are more diffuse in their occupational goals and they are willing to deal with a greater range of career possibilities. These findings give rise to the question whether these and some other related features of vocational aspirations are associated in any way with the quality of the individual's personality functioning also. The present study is an attempt to explore this possibility within the limits of only the extraversion-introversion dimension.

It appears to the authors that some of the many psychological differences between these two types of personalities pointed out by Jung (4) and more specifically by Eysenck (2), may have a bearing on the vocational aspirations of these two groups. It has been pointed out that introverts show high over-all rigidity in their behaviour whereas the extroverts are low in rigidity. It is further pointed out that introverts show less intra-personal variability whereas extroverts are high in intra-personal variability. These observations give rise to the expectation that if opportunities are provided for changing one's vocational choice, the extroverts would utilise them more fully for the sheer reason that they are less rigid in their behaviour and have high intra-personal modifiability, whereas introverts would, on account of their low intra-personal variability and high rigidity, show greater choice-persistence or choice-loyalty. The introverts would show greater reluctance to introduce

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changes and would tend to repeat the same choice on different occasions. Thus, the hypotheses that derive, and which the present study seeks to verify are that, granted occasions for change, (i) extroverts would betray greater occasion-to-occasion variation (lesser rigidity) of vocational aspiration than introverts, (ii) ambiverts would betray lesser variations of this type than the extroverts and (iii) ambiverts would betray greater variations of this type than introverts.

Method

130 male postgraduate students randomly selected from the different departments of the University of Bihar served as subjects. Out of this group 10 were rejected because of incomplete, illegible and ambiguous questionnaire-responses. The Ss fell into the age-range of 18-22 years.

Each S had to fill two forms : –

(a) The Conklin Extraversion-Introversion Interest Scale (I). This scale was selected as it has been used with success by Conklin (i) for a similar purpose.*

(b) A sentence-completion test which was introduced as a Preference Indication Test to the Ss who were told that the purpose of the questionnaire was to find out some of their everyday likes and preferences. Out of 25 items in the questionnaire 5 were randomly placed vocational aspiration items, *e.g.* "In my opinion the most attractive job is........" or "I always wanted to get into the job of ...." (3), and so on.**

On the basis of their scores on the Conklin scale, it was possible to have 3 distinct groups of subjects as follows :—

(i) Ss high in extraversion (ext) . . . This comprised of 20% of the Ss falling at the extreme extraversion-end of the scale.

(ii) Ss high in introversion (int) . . . This comprised of 20% of the Ss falling at the extreme introversion end of the scale.

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*Applying this scale Conklin found important extraversion-introversion differences in the choice of several vocations.

**This method of measuring vocational aspirations was adapted from Getzels and Jackson.

(iii) Ss falling in the middle *i.e.* ambiverts (amb) ... This comprised of 20% of the Ss falling in the middle of the scale.

N for each group was 24. Remaining Ss were dropped. The scores of the 3 groups also tallied to a great extent with Conklin's norms.*

Rigidity of vocational aspiration was measured inversely by the item-to-item (vocational items in the sentence completion test) variations of vocational choice in individual Ss. Since there were 5 vocational items each S had 4 occasions to change his choice.

Results

The findings recorded in Tables 1 & 2 indicate that occasion-to-occasion or item-to-item variations of vocational choice in the 3 groups have taken place in the expected direction and the differences (i) between extroverts and introverts and (ii) between extroverts and ambiverts are clearly significant as measured by both chi-square and t tests of significance. The difference between the introverts and ambiverts, although in the expected direction, is not clearly significant in as much as the results of the two tests of significance are mutually not supportive. Judged from the point of view of number of Ss showing different amounts of item-to-item change in the two groups, the difference is significant (chi-square=13·48 ; P=·01), but judged from the point of view of the average number of changes in the two groups, the difference is not significant (t value=1·64 ; P=·10). The over-all chi-square value obtained is highly significant (P=·01) showing that the amount of item-to-item variation of vocational choice is dependant upon extraversion-ambiversion-introversion to a highly significant degree. The chi-square value obtained is 45·36 whereas that required for significance at ·01 level is only 20·09 (df=8).

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*Details were as follows :—

	Ext	Amb	Int
Score-range (Conklin's norm) ...	0-57	58-94	95 & above
Score-range (obtained)	49-63	68-103	119-197

TABLE I

Showing No. of Ss for different amounts of item-to-item change.

	0 change	1 change	2 changes	3 changes	4 changes
Ext (N=24)	1	2	2	16	3
Amb (N=24)	2	4	14	3	1
Int (N=24)	2	15	3	3	1

Over-all significance ...... ·01 (chi-square =45·36)
Between Ext & Int .. ... ·01 (,, ,, =20·38)
,, Ext & Amb...... ·01 (,, ,, =19·90)
,, Int & Amb...... ·01 (,, ,, =13·48)

TABLE 2

Showing total No. of item-to-item variations of vocational choice.

	Total No. of changes	M	SD	SEM
Ext	66	2·75	·93	·19
Amb	45	1·88	·95	·20
Int	34	1·42	·89	·19

Significance of differences :
Between Ext & Int .... ·01 (t=4·75)
Betweeu Ext & Amb .... ·01 (t=3·11)
Between Int & Amb .... ·10 ns (t=1·64)

Discussion

The study started with the expectation that the quality of personality functioning should be associated with the rigidity of vocational aspirations. This came out to be true, the chi-square value between item-to-item variations of vocational choice and extraversion-ambiversion-introversion being significant at better than ·01 level. Out of the three hypotheses the first two stand clearly supported. The third hypothesis that ambiverts would show greater item-to-item variation than introverts is not clearly verified, the null hypothesis having been rejected by one test (chi-square) but retained by another (t), although the difference is in the expected direction. The first two hypotheses are thus verified, the third one not so clearly.

Two things stand out. Firstly, there is no significant introvert-ambivert difference with regard to rigidity of vocational aspirations (the difference is of course significant in the other two pairs). Secondly, the ambiverts are closer to the introverts than to the extroverts, there being greater chi-square and t values between ambiverts and extroverts than between ambiverts and introverts (Table 3).

TABLE 3

Showing significance of difference in vocational choice between Amb-Ext. and Amb-Int.

	Chi-square		t	
	Value	P	Value	P
Amb-Ext	19·90	·01	3·11	·01
Amb-Int	13·48	·01	1·64	·10

Both these things, namely, (i) insignificance of difference between ambiverts and introverts and (ii) greater ambivert-introvert proximity than ambivert-extrovert proximity, are borne out by another finding of this study. An examination of the differences with regard to the range of vocational choice in the three groups reveals that the same relationships exist here also. The greatest number of vocations (highest range) has been mentioned by the extrovert group, the smallest by the introverts, whereas the ambiverts fall between the two, but here again the ambivert-introvert difference is not significant whereas the difference in the remaining two pairs are significant. (Table 4)

TABLE 4

Showing range-difference of vocational choice in the three groups.

	Total No. of vocations mentioned	M	SD	SEM
Ext	46	1·92	·72	·15
Amb	37	1·54	·49	·10
Int	35	1·46	·37	·08

t Values :—Between Ext & Int ... 2·70 (P=·01)
,, Ext & Amb ... 2·11 (P=·05)
,, Int & Amb ... 0·62 (P=·50) ns

Here we have further evidence supporting the first two hypotheses and rejecting the third one. That the 'high-rigidity' group as measured by item-to-item variations of vocational choice should betray a significantly smaller number of occupational choices than the 'low-rigidity' group should not be surprising in as much as both item-to-item variations and the total number of occupational choices may be taken to be merely different measures of two different vocational ranges. Whereas the former measures the personal (intra-individual) range, the latter measures the group range. Further, rigidity perhaps does mean lesser willingness and mental preparation for dealing with a bigger range of career possibilities.

The conclusion is thus quite compelling that in matters of vocational aspirations, the introverts betray significantly greater rigidity or choice-loyalty than the extroverts. The study supports the first two hypotheses clearly whereas the evidence with regard to the third hypothesis is not conclusive, being more against the hypothesis than for it. The difference in respect of number of Ss showing different amounts of item-to-item variations of vocational choice is significant (Table I), whereas the differences in respect of (i) average number of item-to-item variations and (ii) the range of occupational choice in the two groups are not significant (Tables 2 and 4 respectively).

Summary

The study aimed at determining whether extraversion-introversion is related to the individual's rigidity of vocational aspirations. The hypotheses to be tested were (i) introverts would be more rigid than extroverts, (ii) ambiverts would be more rigid than extroverts and (iii) ambiverts would be less rigid than introverts. Application of Conklin's Extraversion-Introversion Interest Scale helped in getting 3 distinctive groups of Ss—extroverts, introverts and ambiverts. A sentence completion test having 20 neutral and 5 vocational items was used to know about the vocational aspirations of Ss and the amount of item-to-item variation of vocational choice gave an inverse measure of rigidity of vocational aspiration. The findings supported clearly the first two hypotheses, but with regard to the third, evidence was conflicting, there being more against than for it. In many respects ambiverts were found to be closer to introverts than extroverts as regards rigidity of choice.

References

1. *Conklin, E. S.* The Determination of Normal Extrovert Introvert Differences. Pedagogical Seminary and Journal of Genetic Psychology, 1927, Vol. 34, Pp. 28-37.

2. *Eysenck, H. J.* Dimensions of Personality. Routledge & Kegan Paul, London, 1947.

3. *Getzels, J. W. & Jackson, P.W.* Occupational choice and cognitive functioning : Career Aspirations of Highly Intelligent and Highly Creative Adolescents ; J. Abnorm. Soc. Psychol., 1960, Vol. 61, Pp. 119-23

4. *Jung, C. G.* Psychological Types (Translation-Baynes, G.H.) Kegan Paul, Trench Trubner & Co. London. 1938.

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INTELLIGENCE AND TEACHING ATTITUDE

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Problem

The aim of this research project is to study the relationship between general mental ability (or intelligence) and teaching attitude. It is a well acknowledged fact that at least average level of intelligence is necessary for success at school or college stage. It is necessary that students as well as teachers possess average or above average level of general mental ability. Intelligence is not the sole factor required in order to be a good teacher. There are other non-intellectual traits which are more conducive to successful teaching; these traits have been termed here as "teaching-attitudes". A teacher, however intelligent, will not prove to be a good teacher if he does not possess these attitudes which characterize a good teacher just as a dull person, however highly he may be endowed with the healthy teaching attitudes, will fail to make a good teacher. Thus, healthy teaching attitudes are as important as the level of intelligence in the personality of a good and successful teacher.

It would be of great theoretical as well as practical interest to investigate the relationship between intelligence and teaching attitude. If intelligence and teaching attitudes are found to go together it would be possible to select those persons for training who possess high intelligence as well as desirable teaching attitudes. The problem of selecting persons for training who have both the desirable attitudes and aptitude for teaching becomes all the more acute today when many people take training merely to be sure of getting a job. Lack of job opportunities in other fields drives many unwilling and temperamentally unsuited people to the teaching profession, a situation which may be responsible partly for the dissatisfaction of the students with their teachers and the related problems of discipline. It is because of this need that the present study was undertaken.

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The research design

(*a*) *Measurement of Intelligence :* For the measurement of Intelligence HGT-GMA (Humanities Group Test of Generel Mental Ability) in Hindi constructed and standardized by Joshi (5) has been used. Information about the construction, reliability, validity, norms and other allied studies made on this test has been published elsewhere (3,4,7,8,9).

(*b*) *Measurement of Teaching Attitude :* The Minnesota Teacher Attitude Inventory constructed and standardized by Cook, Leeds and Callis (1951) has been adapted for experimental purpose by Joshi (5). This test attempts to measure the teacher's attitudes in the following five areas :

(*i*) *Moral Status* of the children in the opinion of adults specially as concerns their adherence to adult imposed standards and morals.

(*ii*) *Discipline* and problems of conduct in the classroom and elsewhere, and the methods employed in dealing with such problems, *i.e.*, permissive, punitive etc.

(*iii*) *Principles of Child Development and Behaviour* related to ability, achievement, learning, motivation and personality development.

(*iv*) *Principles of Education* related to the philosophy of education, curriculum and administration, and

(*v*) *Personal Reactions of the Teacher* likes and dislikes, sources of irritation, etc.

Other details of the Minnesota Teacher Attitude Inventory are given in the Manual (2).

(*c*) *Sample* : 95 pupil-teachers of 19 to 25 years age, (M=22 yrs), under training for Basic Teachers Training Examination at Niwari, District Tikamgarh in Madhya Pradesh were used as subjects for this study. All the teachers belonged to lower socio-economic group with monthly salary of Rs. 80/- only and came from the rural areas. They had all completed their high school education. Thus the group is homogeneous with respect to socio-economic, residential and educational background.

In this type of training institution two types of training courses are prevalent—(1) theory courses which include principles of education, methods of teaching, school management and hygiene, modern thought of education and general science ; (ii) practice courses consisting of book craft, drawing and painting, spinning, weaving and agriculture.

Results.

The intelligence test as well as the Minnesota Teacher Attitude Inventory are group tests. They were administered with an interval of one week between the two. The marks obtained by the students in their "theory", and "practice" courses as well as their marks in the "teaching practical" were made available by the institution. In the Minnesota Teacher Attitude Inventory the final scores are obtained by subtracting the W (wrong) scores from the R (right) scores. In the present form of the revision it was found that the W scores exeeeded the R scores. This shows that further analysis of the items is required in the present study. Only the R scores from the Teacher Attitude Inventory have been taken up for comparison. The following results were obtained :

TABLE 1

Showing the M, SD, and SEM for Intelligence, Teaching Attitude, and subjects taught to 95 pupil-teachers.

	Intelligence scores	Teaching attitude scores	Subjects taught during training	
			Theory scores	Practice scores
M	31·0	44·0	44·58	40·68
SD	12·47	7·46	8·86	6·39
SEM	1·28	0·763	0·91	0·66

The SEM values for all the four categories of scores are very low and therefore the obtained M values to be seem very reliable.

Table No. 2, below, shows the correlation coefficients among these variables. SE_r values are also shown with each coefficient.

TABLE 2 (N. 95)

Showing the coefficient correlations between the variables.

Variables	Teaching (Practice)	Teacher attitude	Intelligence
Teaching (theory)	·394 (±·065)	·617 (±·065)	·894 (±·019)
Teaching (Practice)		·428 (±·082)	·435 (±·083)
Teacher attitude			·794 (±·037)

Table No. 3, below, shows the correletion between the marks given on "teaching practical" with the scores on teacher attitude and intelligence on 94 subjects.

TABLE 3

Showing coefficients of correlation between Teaching Practical and Teacher attitude and Intelligence.

Variable	Teacher attitude	Intelligence
Teaching Practical	·151 (±·10)	·085 (±·10)

Discussion

Results of Table 2—All the obtained coefficients of correlation are highly significant and reliable as their corresponding low SE_s prove.

The following interpretations can be made on the basis of the results obtained :

(i) The theory and practice courses have a moderate degree of correlation, which is, however, reliable and *non-chance-product*. The moderate degree of correlation is but natural as the former is more of an intellectual type of task while the latter is more of performance and demands more skill of manual type.

(ii) Theory of teaching and teacher attitude have a high correlation (·617) with very small SE (·065) On the basis of this correlation alone it may be said that the theoretical orientation of a pupil teacher will influence his teaching attitude to a high degree (nearly 36% $-$r)^2.

(iii) Teaching (Theory) and intelligence have a still higher degree of correlation (·894) with a very low SE_r (·019). This may further confirm the preceding observation that the success of theoretical orientation, i.e., the teaching of philosophy of education and principles of modern education which aim at a more humanistic point of view with liberal ideas, can be accomplished only if the candidates have a high degree of intelligence. A dull person, therefore, cannot be a good educator in the modern sense of the term. Success in the "theory of education" seems to depend upon level of intelligence to the magnitude of 80% (which is equal to the obtained r^2).

(iv) Teacher attitude and intelligence : From the above findings one would be lead to formulate the hypothesis that a high degree of intelligence is associated with high scores on the Teacher Attitude Inventory. To test this hypothesis the correlation between these two variables was computed. The hypothesis that intelligence and teaching attitude are positively correlated to a great extent has also been confirmed, the r being ·798 with $SE_r = ·037$.

(v) Teaching practice and teacher attitude : These two variables seem to have only a moderate degree of correlation, because the "teaching practice" course is a course on hand-craft, book-binding, painting, agriculture, etc. These courses have been included in the teacher training programme from a purely utilitarian point of view. It was felt that teaching of arts and crafts, and agriculture to the students of a poor country such as ours would perhaps help to solve some of the economic problems of students. There is no other special reason for the inclusion of these subjects in the training course for the pupil-teachers.

(vi) Teaching practice and intelligence : The correlation between these two variables is also moderate. The explanation too is the same as offered above.

(vii) Intelligence and over-all assessment of the pupil-teachers (not shown in Table No. 2) comprising both the theory and practice courses combined showed $r = \cdot 607$ with $SE_r = \cdot 065$. This correlation has been improved on account of the theory of education course which has a high correlation with intelligence as shown above. Therefore this rise in the magnitude of r is understandable.

Results of Table 3—At the time of the annual examinations the pupil-teachers are assessed for their teaching performance in a real classroom situation. This is the examination of the training received through the courses in the theory of education and the earlier practice they have had in teaching the classes and in handling the different situations arising in the class room. The marks given by the *internal examiner* (one of the teachers) were available, whereas the marks awarded by the *external examiner* were not available. The correlation between the marks given on the "practical" and teaching attitude was found to be only ·151 with $SE_r = \cdot 10$. This same results are found on computing the r between "practical" marks and intelligence, ($r = \cdot 085 \pm \cdot 10$). The subjective error in the marks awarded by the internal examiners seems to be responsible for the low correlation. The teachers fail to maintain objectivity in their role as internal examiners and give very high marks to nearly all students. As a result of this their scores lose all *discrimination-power* and the internal examination becomes an invalid assessment of the candidates' performance. The M for the "practical" course for 94 students was 31·3 out of a possible maximum of 50 with SD 3·22 and SEM ·33, indicating extremely high reliability of the M. The above type of scoring indicates that most of the pupil-teachers were first class teachers as far as their teaching aptitude was concerned—a claim which would be very difficult to maintain. Since the assessment of the teaching "practical" is invalid, the correlation with other measures which are valid and dependable is naturally low-

Conclusion

1. Intelligence has a high degree of positive correlation with teaching attitude. High level of intelligence is conducive to the development of liberal and sympathetic attitudes towards moral, social or other types of class-room or extra-class problems of the students. Intelligence seems to be more closely associated with objective and progressive ideas in contrast to the traditional and stereotyped norms. This is the main reason for the high correlation between these two variables.

2. Intelligence is also highly correlated with the teaching of "theory of education or principles of education or modern education". These courses are academic, i.e. intellectual type of courses in contrast to the "practice" courses where manual skill and training in handicrafts is the aim.

   Therefore, the results of this study show that intelligence tests may be used with a high degree of success for the selection of pupil teachers possessing the right teaching attitudes. So long as proper tests of teaching attitudes are not available in India, intelligence tests will be of great use in selecting proper candidates for training in the teacher's training colleges. Even later they will prove of value if their results are combined with those of other types of tests in selecting suitable candidates.

3. Teaching attitude and courses in the theory of teaching have a high correlation (·617±·065). This supports the above contention also. Performance in the rest of the courses has very little predictive power.

4. It would not be incorrect to say that the prevalent method for assessing the "practical performance" of the pupil-teachers in a class-room situation is not a valid one as the examiners (particularly the internal ones) are found to give high scores indiscriminately to all. Therefore such an assessment has no predictive value.

5. A follow up study needs to be made with these subjects to see to what extent their actual performance has been predicted by the intelligence scores and the marks on the "theoretical" papers, *i.e.* the theory or principles of education courses. The scores of the teacher attitude inventory have been correlated with the "Theory of Education and Philosophy of Education" courses. These scores need to be validated against actual performance of the teachers in the schools.

References

1. *Cook, W. W., Leeds, C. H. and Callis, R.* Minnesota Teacher Attitude Inventory. Form A, 1951.

2. *Cook, W. W., Leeds, C. H. and Callis, R.* Manual for Minnesota Teacher Attitude Inventory. Form A, 1951a.

3. *Joshi, M. C.* A Study of Intelligence scores with and without time-limit. *Ind. J. Psychol*, XXXI, Part I-II, 1956.

4. *Joshi, M. C.* Influence of socio-economic, rural-urban and caste difference on intelligence scores. Monograph published in *Madhya Bharati Res. J. Univ. Saugar*, 2, No. 2, 1959, pp. 27-59.

5. *Joshi. M. C.* Construction and standardization of a group test of general mental ability (in Hindi) for school and college students. Banaras Hindu University, Varanasi. Ph.D. Thesis (unpublished), 1960a.

6. *Joshi, M. C.* Minnesota Adhyapak Abhivritee Suchee (K 2), Lab. Psychol. Univ. Saugar, 1960a.

7. *Joshi, M. C.* Manual of Directions and Norms for Huma-

nities Group Test of General Mental Ability. Saugar, (M. P.), 1961.

8. *Joshi, M. C.* Construction and Standardization of Humanities Group Test of General Mental Ability (in Hindi). *Psychol. Stud.*, Vol. 8, No. 1, 1963, pp. 15-28.

9. *Joshi, M. C.* Heterogeniety in the distribution of intelligence among undergraduates. *Psychol. Stud.*, Vol. 8, No. 2, 1963a, pp. 102-110.

NEWS FROM HERE AND THERE

Delhi

A careers conference was organized last May by the Delhi Guidance Association in collaboration with the Central Bureau of Educational and Vocational Guidance. Representatives of twelve occupations were the speakers at the conference, which was arranged in the Delhi Public Library for the benefit of school and college students and their parents. About 300 persons attended the conference.

* * * *

The Association took advantage of the presence of officers of the Government of Philippines who were in Delhi on a study tour under the Colombo Plan, to arrange two talks on guidance programmes in the Philippines. Mr. Pacifico G. Allarde of the Bureau of Vocational Education, Manila, gave an account of the organisation of guidance programmes in the educational sector, while Miss Marita C. Sapitulla of the Pilot Rehabilitation Training Centre, Social Welfare Administration, Quezon City, described the guidance procedures and programmes at the Vocational Rehabilitation Centres for the physically handicapped.

* * * *

Directorate General of Employment and Training

The Eighth Training Course in Vocational Guidance for Employment Officers commenced at the Directorate General of Employment and Training on 21st April, 1964. Forty officers from 13 States and Delhi are participating in the training course.

* * * *

Publication of a new type of occupational information literature known as *Bulletin on Job Opportunities in India* has been undertaken by the D.G.E.&.T. It is a quarterly bulletin containing analyses of vacancies carrying remuneration of Rs. 200 and more, which occurred in the country during the previous quarter. The first issue was published on Ist March, 1964. The digest of vacancies presented in these issues will be useful to counsellors and career masters.

* * * *

Report on Pattern of Graduate Employment, recently published, makes available the findings of a survey of occupations, earnings and other employment characteristics of graduates of Indian Universities who obtained a degree in 1954 or in 1950. The survey which was conducted in 1960 involved an All-India sample of 7447 graduates.

* * * *

The first five Youth Vocational Centres have been set up with financial assistance from UNICEF at Ludhiana, Narendrapur, Madras, Secunderabad and Bombay. These centres are intended for children generally between the ages of 11 to 14. The instructional programme combines general education with pre-vocational training in trades such as turning, fitting, carpentry, blacksmithy, moulding and welding. Provision has also been made for the appointment of a career master in each of these centres. It is proposed to set up 65 centres by the end of the Third Plan.

* * * *

Gujarat

Kumari H.M. Desai has taken over as Vocational Guidance Officer at the Institute of Vocational Guidance, Government of Gujarat, located in Ahmedabad.

* * * *

A Career Master's Course for the multipurpose schools of Gujarat has been organized by the Institute.

* * * *

Maharashtra

The Faculty of Education and Psychology, M.S. University of Baroda has been selected by the U.G.C. for the establishment of a Centre for Advanced Study in Educational Psychology. One of the major activities of the centre will be to carry out researches in the field of guidance and counselling for schools and universities, and to promote guidance programmes for school children. The activities of this centre which will be of direct interest to guidance workers are the construction and standardisation of psychological tests suitable for use in India and the study of subnormal and superior children with a view to helping them in their work and adjustment.

* * * *

Mysore

Posts of Guidance Counsellors have been created in six schools in the State of Mysore.

* * * *

The Bureau of Educational and Vocational Guidance, Bangalore, conducted a three-week training course for career masters in January. This was the tenth training course conducted since the inception of the Bureau. So far 297 teachers have been trained as Career Masters by the Bureau.

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Two Youth Vocational Centres are to be opened at Kota (South Kanara) and Anekal (Bangalore district) in July.

* * * *

Orissa

Shri Ram Krishna Kar has joined the State Bureau of Educational and Vocational Guidance as Director. Shri Dayanidhi Khadanga has been promoted from Technical Assistant to Assistant Counsellor. An occupational Information Officer has also been appointed.

* * * *

Punjab

We are happy to announce that the State Bureau of Educational and Vocational Guidance which had closed down last year has been revived at Chandigarh. The following staff has been appointed :—

Shri R.S. Chaudhry — State Counsellor
Dr. J.S. Bedi — Senior Assistant Counsellor
Shri A.P. Shukla — Psychologist
Shri Karnail Singh — Technical Assistant

* * * *

Rajasthan

During the month of January, 1964, a series of programmes of filmstrip shows, career talks and exhibition of occupational information materials for school leaving students was arranged by the Vocational Guidance Unit of the Sub-Regional Employment Exchange, Ajmer, in collaboration with the State Audio-Visual Aids Officer.

Janak Sethi
CBEVG

ABOUT OURSELVES

Dr. Givens L. Thornton, Visiting Fulbright Lecturer, U.S. Educational Foundation in India, who was attached to the CBEVG for the past nine months has left the country to return to his post at Grinnell College, Iowa. Dr. Thornton had participated in the Bureau's training and research programmes.

On the eve of his departure the staff of the Bureau gave a farewell party for Dr. Thornton and his familly.

* * * *

Kumari Swadesh Juneja and Kumari Usha Chhabra, who recently completed the Diploma Course in Guidance at the Central Bureau, have joined the staff of the Bureau as Technical Assistant and Testing Assistant respectively. Shrimati B. Leela Sivaramayya has joined as Librarian. We extend a warm welcome to them.

* * * *

The final examination of the Fifth Diploma Course in Educational and Vocational Guidance was held in the months of April-May. The following trainees have been declared successful and awarded the Diploma : Km. Chhabra Usha, Km. Juneja Swadesh, Shri Lazarus J., Smt. Mody Tara, Shri Mathew Mohan, Shri Ranganath S., Shri Shankhdhar S.G., Shri Shah S. K., Shri Venkta-Swamy N., Shri Sharma R.S.

* * * *

The valedictory function of the Diploma Course was held on 8th May, 1964. Professor V.K.R.V. Rao, Member (Education, Social Planning and International Trade), Planning Commission, delivered the valedictory address.

* * * *

Two groups of officers, one from the Government of the Philippines and the other from the Government of Malaysia, who were undergoing training at the D.G.E.&T., visited the Bureau to acquaint themselves with its functions and programmes. Special orientation programmes were organized for them.

* * * *

In order to identify promising students in science and provide them necessary encouragement for pursuing higher studies in the basic sciences, the Department of Science Education (National Council of Educational Research and Training) has formulated a scheme of Science Talent Search. Under this scheme, a number of scholarships are awarded to meritorious students who possess a high level of aptitude for science. CBEVG is providing guidance and counselling to these students.

* * * *

This year the Bureau has introduced selection testing for non-official candidates applying for admission to its Sixth Diploma Course in Educational and Vocational Guidance. One hundred and seven students appeared for the selection tests, which were conducted at the CBEVG and at 22 other centres in different parts of the country. Most of these centres were in employment exchanges and the testing was conducted by trained Vocational Guidance Officers of the National Employment Service.

* * * *

The Bureau has recently brought out a booklet entitled "Hamare Vyavsaye", in the series "Vyavsaye Parichay Mala". The booklet will be useful for orienting pupils to the world of work. This is a priced publication and can be obtained from the Publication Unit, 114, Sunder Nagar, New Delhi.

Sayyara Qayoom
CBEVG

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Guidance Review
Vol. 2, No. 3.

BOOK REVIEW

PROCEDURES AND PREPARATION FOR COUNSELLING

by William C. Cottle and N.M. Downie. Englewood Cliffs, N. J. : Prentice-Hall, 1963. 330 pp.

This book is intended as a textbook to acquaint the beginning student in counselling with the kind of information and the type of preparation the counsellor will need prior to the counselling interviews.

A discussion of counselling theory as such is not included, but the authors have emphasized the importance of having a framework of relevant data about the client. It is indeed necessary for the counsellor to have some idea of the problems the client will present and the background from which they arose, if his counselling is to be meaningful for the client.

Considering the vast array of information that must be obtained about a client, the authors recognize the need for the counsellor to know the procedures and techniques for gathering data as well as developing the skills for selecting and using it meaningfully.

The book contains an accurate and up-to-date presentation of the generally available information about case study methods, personal histories, diagnostic testing, etc. but the wide range of techniques presented is a handicap towards discussing any procedure in depth. Only a rather cursory discussion about each method is possible and the authors themselves admit that most of the chapters, "summarize and review tools and techniques of counselling learned in a number of courses, and show how more general educational and psychological tools, such as statistics, are used in preparation for counselling and in interpretation of client data."

An attempt has been made to discuss these procedures as nearly as possible in the sequence in which the counsellor will utilize them, although in an activity like counselling it is not possible to lay down any hard and fast rules about the order of utilizing various data. Also, some of the procedures discussed, *e.g.* the initial interview, observation during counselling, etc., are a part of the process of counselling itself.

While stressing the importance of observational and biographical techniques in the first chapter, the authors have rightly put in a word of caution against the counsellor's allowing the information obtained through such methods to cloud or bias his interpretations of the client's current behaviour. The next four chapters are devoted to a discussion of records and personal documents, observation, initial interviews and preparation of case-studies. The chapter on Records and Personal Documents also includes a short description of sociometry. Although brevity of discussion is a characteristic of all the chapters, the material is well supplemented by illustrations of records and bio-data forms, etc. which the student can use as guiding samples. The authors have attempted to give up-to-date information about some of the better known rating scales available in U.S.A. The case-studies of John Doe and Edward Doe illustrate the method of organizing data in a convenient and practical way for helping a client 'to understand behaviour, to accept such behaviour as a part of self, and to make sound educational and occupational choices as a result.' The whole discussion is geared more towards educational and vocational counselling than personal counselling. What makes the book slightly confusing is the perhaps unavoidable mixture of elementary and advanced material. Considering the background qualifications which students of courses in counselling are expected to possess, definitions of the terms ability, aptitude and interest could probably have been avoided in a discussion of case histories. In case there are students without this elementary knowledge, the amount of information furnished here would be insufficient for them.

The next two chapters deal with elementary statistics. The authors have emphasized the importance of applying statistics to the interpretation and organization of data obtained from all the tools and not just to tests used in counselling. Chapter Six deals with the basic techniques that are used for manipulating test scores or other quantitative data. So far as the application of statistics to the evaluation of data collected for counselling is concerned, these chapters are valuable, but the computation of elementary statistical measures like the mean, median and standard deviation etc. could well have been left to a book on statistics for they certainly are not enough for a student who has no background in statistics and are too elementary for others.

The next three chapters deal with the selection and use of standardized tests of abilities, aptitudes and interests. Besides a discussion of the implications of the validities and reliabilities of tests, the sources from which information about tests and research done in the area of counselling can be obtained are also indicated. There is also additional information about the context in which various tests have been used and the way they have worked in different situations. The discussion of interest inventories in the light of counselling needs is also important for the beginning counsellor.

Chapter eleven contains a discussion on personality inventories and a few paragraphs on projective techniques and attitudes. Here the reader has been rightly warned about being extremely cautious while using and interpreting personality inventories and the need for keeping in mind the response set or motivation of the client when taking the inventory.

The authors have ended with suggestions for beginning counsellors about the type of research studies that can be taken up by them. Illustrations of various types of research problems and follow-up studies are included.

For the purpose that it is intended, 'Procedures and Preparation for Counselling' can be a very useful and informative textbook, specially if it is supplemented by relevant information from the Indian background for use in our own counsellor-training courses.

Janak Sethi *

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TEST REVIEW

The General Science Test Class VIII ; 1962 ; single score ; 45 minutes ; norms in percentiles and standard scores ; Re. 0·75 per manual ; Re. 0·30 per test booklet ; postage extra ; Dr. K.N. Saxena ; published by Kitab Mahal Private Ltd., 56-A Zero Road, Allahabad.

Apparently this test has been constructed to provide an objective measure of basic knowledge gained from a course in General Science prescribed for class VIII of schools of Uttar Pradesh. Most of the items deal with very factual content such as names of apparatus, various parts of the body, properties of chemical products, etc. The recognition and recall of factual information has received undue emphasis. The items make only limited demands upon the ability to apply principles to new situations, to make generalizations or to relate general science to more familiar aspects of everyday living.

The test contains 100 items made up of a large number of the 5-response multiple choice and fill-in-the-blank type of items. All items are well written as to language usage and specificity of the problem. The responses are so written that there is no room for ambiguity and this reviewer could find no errors in the keyed answers. The format is adequate. However, practice-items for each new type of test-item should have been given on a new page. This would have avoided the appearance of overcrowding.

Reasonably complete information regarding sampling of population is presented in the test manual. The test was standardized on 2190 boys studying in class VIII of higher secondary schools of Uttar Pradesh. A sample of thirty higher secondary schools was selected from ten districts of Uttar Pradesh spread over all the seven educational regions of the State. Out of every three schools selected from a district, one was of an average educational standard, one above and one below the average. The sample seems to be fairly representative.

The reliability coefficient of the test is 0·88. It was calculated by the method of "Rational Equivalence" on the basis of a representative sample of 365 cases drawn out of the total sample of 2190 students. For purposes of intergroup comparisons the reliability coefficient of 0·88 is satisfactory but for intra-individual comparisons this reliability coefficient should be higher.

It is indicated in the manual that the empirical validity of the test is 0·46. The criterion against which this validity has been computed is not mentioned in the manual. "Empirical validity" of 0·46 for an achievement test seems to be low. The predictive validity of the test is 0·57. Again, no mention has been made regarding the criterion and reliability of the criterion. The present reviewer finds it difficult to make any judgment concerning validity coefficient as the test manual does not indicate essential information regarding the predictive validity of the test. It has been so often observed that test manuals do not give sufficient details about reliability or validity of tests and that mere numerical indices for these essential characteristics of psychological tests have little meaning for test users.

The manual presents tables for converting raw scores to percentile ranks and standard scores. The standard scores are scaled with a mean of 50 and a standard deviation of 10. Instructions are presented in detail for administering and marking the test. Only general statements regarding the use of the test in guidance and selection are perhaps not enough. Detailed suggestions could have been made for correct interpretations and proper use of the test scores for specific purposes.

The present reviewer endorses the author's contention regarding the suitability of the test for girls. The same course content in general science and a common examination for boys and girls are enough reasons in favour of a common achievement test for boys and girls. However, the necessity for developing separate norms for girls on this test cannot be ignored. Percentile and standard score norms for male students of class VIII of Uttar Pradesh have been provided in the test manual.

It is claimed that the test can be used for selecting the right type of students for scientific and technical courses at I.T.I.'s and polytechnics. However, the author does not offer in the manual any research evidence in support of the claim which is doubtful in view of the shortcomings already pointed out. Moreover, this claim does not seem to be sound because of two more reasons. Firstly the test measures only some of the objectives of teaching science ; secondly, success by a student in technical courses not only requires good achievement in science but also the presence of specific abilities, skills, and interests. Therefore, this test alone cannot provide an adequate measure of a student's suitability for scientific and technical courses.

In summary the test does provide an objective measure of the degree of knowledge of general science that students should possess at the end of class VIII. The author of the test deserves credit for making an attempt to provide an achievement test in general science for purposes of guidance and selection. Keeping in view the paucity of good achievement tests in various school subjects in the country, Dr. Saxena's test may be used on tentative and experimental basis along with other psychological tests for purposes of selecting students for scientific and technical courses. However, it cannot be used singly for such a purpose.

L.C. Singh*

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Guidance Review
Vol. 2, No. 3.

REVIEW OF OCCUPATIONAL INFORMATION MATERIAL

Bulletin on Job Opportunities in India. Ministry of Labour and Employment (DGE&T), Government of India, New Delhi. Vol. 1, No. 1, 1964.

Information on job opportunities is meager and is urgently required by young persons and those who are concerned with their guidance. The Quarterly Bulletin on Job Opportunities in India issued by the Ministry of Labour and Employment (DGE&T) presents information about job opportunities at professional and executive levels in engineering, technological, scientific and other specialised fields of work. The purpose as stated in the preface is "...to bring home the general picture of the vacancy position in these fields".

The bulletin reports vacancies under six broad categories, these are Engineering, Technology, Agriculture, Medicine, Science and Arts and Commerce. Each category has been further subdivided according to the subjects of study.

The information in this first issue is presented through 13 tables. Table I presents the number and percentage of all Professional and Executive standard vacancies that were open for recruitment during October-December, 1963. The total number of vacancies is 2771 out of which 1288 are in Engineering. The other twelve tables give information regarding the six fields mentioned above. For each field, one table gives the distribution of vacancies under the state governments, central government and private establishments in each case under three pay ranges, namely Rs. 250-499, Rs. 500-999 and Rs. 1000 and above. The second table for each field of work gives the classification of vacancies according to length of experience required, viz., no experience, less than 3 years and more than 3 years. In case of Engineering along with the length of experience the vacancies are also classified according to qualifications as diploma, first degree and post-graduate.

The information is interesting and useful and all those interested in the problem of youth guidance and career planning are sure to find this bulletin worthwhile. With the producers of this bulletin we hope that the following issues will provide a wider coverage of information. All those who are in a position to supply current and relevant information should cooperate to make this publication a useful tool for guidance workers and well wishers of youth.

Chandrakala Dhar*

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Guidance Review
Vol. 2, No 3.

ABSTRACTS

A. A. Dole, Reported Determinants of Educational Choices, *Personnel and Guidance Journal*, Vol. XLII, No. 6, 1964, pp. 564-571.

The study sought to discover the determinants of educational choices. It was based on six major questionnaire surveys which covered 62 percent of the total student population in Hawaii at the 6th, 9th and 12th grades, state university freshmen and seniors, and adults in community schools. All the questionnaires had in common 35 checklist items grouped into three main categories—values, external influences and interests.

Results revealed differences in the determinants of educational choices of the males and females, generally in accordance with the expected sex role in the American culture. The boys were more achievement-oriented and less person-oriented than girls. They were also more responsive to experiences than persons. There was considerable similarity in responses across educational levels and choices. Value of satisfaction, interest in ideas, and influence of experiences and friends were found to be highly influential at all levels, for both sexes and under all conditions of the six surveys. There was a fairly close and meaningful relation between values, external influences and interests, and various educational plans, programmes, colleges, curricula and course groupings. For both the males and the females interests tended to be more closely related to educational choice than values which in turn were slightly higher than influences. At higher levels a closer relationship was observed between educational choices and values and external influences.

* * *

Barbara Gun, Children's Conceptions of Occupational Prestige, *ersonnel and Guidance Journal*, Vol. XLII, No. 6, 1964, pp. 558-563.

The study attempted to discover how children acquire concept of occupational prestige. Twenty boys in each of the grades 1 through 12 were asked to rank 11 jobs plus their father's job and the job they intended to take up, in the order of their standing in the community. Each of them was asked to give reasons for the placement of each job.

The findings showed that boys in grades 1 and 2 knew 8 or 9 of the eleven jobs and also had an idea of what they intended to do. They exhibited a strong tendency to rate their father's job and their intended jobs as high. They could pick out the jobs having the best and the second best standing ; the rest of the jobs appeared to them to be about the same. They most frequently described the occupational world in terms of what it meant to them personally. Jobs perceived to be dangerous were often rated as having high standing. Consciousness of a status heirarchy seemed to appear for the first time in grade 3. A typical third grader used service criteria in the ranking of jobs. Service was described by them and those in the 4th, 5th and 6th grades in terms of good for the community or the country. Boys in the 7th grade and onwards were able to rank all the 11 jobs and could see a definite ladder of occupational prestige. In higher grades, there was an increasing tendency to use more criteria in the evaluation of jobs and to rank jobs in the same order as adults. In grades 10, 11 and 12 differences were found in the expected direction in job rankings as well as in the criteria used by the upper class and the lower class boys.

* * * *

Jacquelin D. Goodchilds and E.E. Smith, The Effects of Unemployment as Mediated by Social Status, *Sociometry,* Vol. 26, No. 3, September 1963, pp. 287-293.

Using length of unemployment as a social stress, the authors hypothesized that the effects of this social stress would be mediated by social status. Subjects were evenly divided into four groups according to length of unemployment. Questionnaire, group discussion, observation, semantic differential, etc. were used to measure witticism, conformity, defensiveness, self confidence and personal evaluation. Comparisons of groups on these measures did not reveal any direct effect associated with unemployment. Significant interactions were, however, noted between length of unemployment and social status. The longer the unemployment the more defensive and self-critical the high-status persons became. They also conformed more to group decisions, joked less and were seen as less helpful by other group members, the longer their unemployment. The lower-status subjects, on the other hand, did not become debilitated under unemployment stress, but actually showed increases in a number of positive self-perceptions and behaviours.

* * * *

P. K. Rohila
CBEVG

THE NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

announces the publication

of the

HANDBOOK FOR COUNSELLORS

by

PERIN H. MEHTA, KHORSHED A. WADIA

and

JOHN G. ODGERS

Pages 108 *Price Re. 1·60*

The Handbook for Counsellors has been prepared keeping in mind the needs of counsellors working in the schools and is intended to serve as an aid to them in carrying out their responsibilities.

The Handbook describes the various services which constitute an adequate guidance programme, discusses the responsibilities of the school counsellor and the other members of the school staff for various guidance activities and suggests the organization and content of a good guidance programme.

Throughout the approach has been practical and an attempt has been made to provide the answers to a variety of day-to-day problems which a counsellor is called upon to handle when actually on the job.

The Handbook should prove a valuable guide to professional workers all over the country in their efforts to introduce guidance services in the schools.

Printed at Kapur Printing Press, Kashmere Gate Delhi-6, by Khorshed A. Wadia
and published by her on behalf of the Central Bureau of Educational
and Vocational Guidance, 33. Chhatra Marg, Delhi-6.

Announcing the Release of the

INDIAN YEAR BOOK OF EDUCATION

1964

ELEMENTARY EDUCATION

Pages 752 *Price Rs. 25·00*

The National Council of Educational Research and Training publishes the Indian Year Books of Education, of which the present book is the second in the series. It is devoted to an examination of the problems of Elementary Education in India.

The Year Book is divided into five Sections. Section one deals with the historical development of elementary education in India, Section Two with some problems of expansion, Section Three with problems of qualitative improvement, Section Four with the administrative and financial aspects and Section Five gives a perspective plan for the development of elementary education in India. The tables appended to the book supply up-to-date and valuable statistical information on various aspects of elementary education in India.

The statements of the issues set out in this book and the data that are presented will be helpful to students of Indian education and to those who have a general interest in a study of these problems.

Copies available from :
Chief Publication Officer,
National Council of Educational
Research and Training,
114, Sunder Nagar,
New Delhi-11.

17 SEP 1964

QUARTERLY BULLETIN OF THE CENTRAL BUREAU OF EDUCATIONAL AND VOCATIONAL GUIDANCE

GUIDANCE REVIEW

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NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

GUIDANCE REVIEW

Editors :

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Director, Central Bureau of Educational and Vocational Guidance

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Counsellor, Central Bureau of Educational and Vocational Guidance

Statement of purpose :

Guidance Review is the bulletin of the Central Bureau of Educational and Vocational Guidance. It aims at meeting the need of professional workers in guidance all over the country for a medium of communication through which ideas and information about techniques, tools, programmes and research, as well as news about individuals and organizations, may be exchanged. The bulletin also aims at promoting understanding of guidance and awareness of its value among educationists.

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The editors welcome original manuscripts on matters of interest to guidance personnel. The types of material desired are : articles, descriptions and evaluations of guidance programmes, reports of completed research, notes on current research, reviews of books, pamphlets, tests and visual aids, abstracts, and news items, Indian and foreign.

Manuscripts should be typewritten double-spaced, on one side of the paper, and sent to the Editors, GUIDANCE REVIEW, CBEVG, 33, Chhatra Marg, Delhi-6. Twenty-five reprints are supplied free to contributors of articles.

Guidance Review
Vol. 2. No. 2.

STUDENT PERSONNEL SERVICES AND THE INDIAN EDUCATIONAL SYSTEM*

*Givens L. Thornton***

In the seven months that we have been in India, we have been all but overwhelmed with this new experience : the temples and other evidences of a rich past, the handicrafts and the more formal arts, the people, the cows, the traffic, particularly in Delhi where I live—perhaps this is why I used the term overwhelmed. We had the good fortune during the early months of our stay to hear some outstanding people, mostly Indian, discuss a wide variety of the more pressing and vital issues in this country today. Such matters as population control, community development in the vast rural sectors, religious differences, the caste system, the changing status of women, industrial development, the educational system and a host of other topics were examined in some depth during this ten-day orientation period. This provided a focus to our observations and put in perspective some issues which at first sight seemed without pattern or design despite the extensive reading that most of us did before our arrival. Since that time, we have become more eclectic, each of us picking and choosing from this marvellously complex environment those aspects which provide us with our individual challenges, rewards, and satisfactions. But since we are all educators sent here to teach, advise, observe, and perhaps engage in some research activity, our dominant direction, as a group has been toward education, I think it appropriate to give my impressions of the educational system here, for, very often, it is the ills of any system which produce some of the complaints which a comprehensive student personnel program is designed to deal with.

It does not take a newcomer long to recognize the educational

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*An address inaugurating a series of seminars on student personnel services at Patna and Utkal Universities and the Universities of Gujarat, Kerala and Rajasthan, in Dec. 1963 and Jan. and Feb. 1964. Dr. Thornton was one of a team of five Fulbright professors of education and psychology participating in these 4-day seminars under the auspices of the United States Educational Foundation in India.

**Dr. Givens L. Thornton is Visiting Fulbright Professor, Central Bureau of Educational and Vocational Guidance, Delhi.

GUIDANCE REVIEW

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It does not take a newcomer long to recognize the educational system here as British to the core but a quick second look reveals modifications and influences that are typically Indian, and yet a third look turns up some unmistakable evidence of the American educational philosophy and methodology.

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As one, particularly an outsider, steps back and with a fresh perspective views this edifice of the Indian Educational System he might see, as I have, something that resembles a new ruin that might be called a *poly-monolith,* fragmented but at the same time, a cohesive whole. It was barely a hundred years ago that the Universities of Calcutta, Madras and Bombay were established, followed by long periods when growth was painfully slow. It has only been in recent years since Independence that the physical plant has begun to expand. Thirty-five of the present 55 universities were established since 1947. But despite this newness it has the smell of antiquity about it : the archaic examination system, the complete reliance on the lecture method of instruction, the delusion that all students are "gentlemen and scholars" seeking after truth and knowledge, beautifully adjusted to life and with no problems, the system of faculty rank and tenure which stifles the upward-striving syndrome, the inflexible grading system, and the overemphasis on humanities and the arts in a country in desperate need of technological advancement (in 1961-62, 44% of the enrollment was in Arts, 29% in Science, 5% in engineering and technology, 3.4% in medicine). Officials in higher education here are well aware of the need to correct some of these weaknesses, and shifts in the above percentages are being detected.

I have used the rather silly paradoxical term, poly-monolith to characterize the educational system, but, to me at least, it conjures up an image quite descriptive. It is large and unwieldy with many strange things sticking out of it. Solid appearing on the surface, it rattles when you shake it. It is wonderfully intricate and complex, highly developed and integrated, not unlike India herself. Someone, objecting to the description of India as an undeveloped country, countered with the argument that India is indeed highly developed since the use of this term generally suggests a complex inter-relatedness, an inter-dependency which certainly is evident in the close relationships of the economy to the religions, to the art and music forms, to the social structure of this country. As fascinating and wonderful as this integration may be, whether applied to the country as a whole or to the educational system, we must admit that when we come to talk in terms of progress or change we are in for trouble. These tight interrelationships thwart us, breeding as they do an unmanageable inflexibility. The examination system, for example, cannot be tampered with because it contributes to the income of the faculty, the syllabi and lectures cannot be changed because they are directed toward the examination. The examinations, in turn, are set to evaluate the content of the syllabi. The faculty cannot devote time to the problems of students because they are so busy contributing to the very system which fosters the growth of these problems. And so it goes.

Other problems were created as the British system was modified to fit the existing situations and times here for which it was never intended. Originally, the lectures carried with them required tutorials which assured daily or, at least, weekly work rather than last minute cramming and, equally important, they provided close faculty student contacts. India, perhaps, originated this method with the close association of the guru with his disciples. For various reasons, the tutorials no longer exist but the lecture method of instruction continues unchecked. Educational psychologists have demonstrated that the passive technique of being "talked at" is one of the poorer methods of instruction. This ailment is complicated by excessive talk, the occupational disease of professors and politicians diagnosed by some as verbal diarrhea, and has reached epidemic proportions. Here we have another example of an inter-dependency since any reduction in the number of lectures might *not* produce the desired performance on the degree examination which, in turn, would reflect back upon the instructor.

In addition to the indigenous changes made in what basically is a rather inflexible system, i.e. the British system, Indian educators are now faced with the problems of trying to fit into the existing structure, snippets and pieces and, occasionally, larger segments of an incompatible system, i.e. the American system. The fact that they are succeeding, as they are indeed, without creating disruptive confusion is eloquent testimony to their wisdom, skill and tact.

Until fairly recently, American representation and counsel in higher education here was found almost exclusively in the mission colleges of this country. While the spirit of the American Christian mission college continues to burn bright, practical problems of financial support and risinig cost of education have softened the impact. One analyst (Hart) suggests some other reasons :

"………after Independence, missions were not promising channels for the greatly enlarged flow of scientific and technical knowledge and educational resources between America and India. Almost at once, broad new channels opened out to India contacts with the world which had formerly been directed to Britain alone. It was desirable since India, like America, is a secular state and a plural society. Many of the channels were specifically American because America happened, also, at this very time, to be enlarging her horizons of governmental, philanthropic, and educational work. The programs that were extended to India were thus in large part as new to America as they were to India".*

The "broad new channels" of which he speaks, are the extensive and varied exchange and aid plans of American colleges and universities supported either by themselves from their own resources or supported by governmental funds or the money of the Ford, Rockefeller, and Carnegie Foundations.

Unquestionably, the largest cantingent of Americans directly involved with and, to some extent, affecting higher education in India is that supported by the United States Educational Foundation which, this year, has sponsored a series of seminars in student personnel services at 5 universities (see "News from Here and There" p. 72).

The director of this organization, Dr. Olive Reddick has been well aware of the lack of such facilities here. Her feelings are reflected in this excerpt from a recent publication of the foundation :

> "The fact that students receive very little guidance or friendly advice from their teachers makes it all the more regrettable that formal guidance programs are practically non-existent in Indian universities. Baroda University has pioneered with a student guidance center which is several years old ; a few other universities are thinking in the direction. But there is actually small realization on the part of the teachers concerning the needs of the students. Recently in a certain university, a staff meeting was called to discuss the question of students' needs and the possibility of a guidance unit. It seemed to be the unanimous opinion of the teachers present that the students had no problem except the ever-present financial one ; yet the few studies that have been made recently

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*Henry Hart, *Campus India*, Michigan State University Press, 1961.

have revealed a depth and breadth of student concerns needing qualified counselling".*

Student personnel services have evolved gradually in the U. S. over the last fifty years and are by no means a recent innovation in American education. They grew out of the deep conviction that education involves the whole person as an individual with his own problems which must be resolved if he is to derive the greatest possible benefit from the academic aspects of his university experience. The student personnel program involves the faculty and the administrative officials as well as the counseling specialist.

Let me outline briefly some of the specific services to be found in a comprehensive program.

1. *Admission* : This relates to the establishment of criteria by which students will be accepted for higher education, and the methods used to evaluate their potential. The effectiveness of psychological methods of selection has been proved. On the Indian scene, the Statesman recently reported the results of tests used to select candidates for officers training.

   > "What have the results been like so far ? Very satisfactory indeed. For one thing wastage in terms of failure at the academies has fallen in the Army from a depressing 60% in 1943 to 5 or 6% now and from nearly 70% in the Air Force to nearly 19%. This has been a direct result of the intensive psychological tests given to the candidates by the Selection Boards."**

   Why cannot some of these same techniques be applied to the field of education ?

2. *Students Record* : This involves orderly maintenance of academic records so as to assist the students as well as his adviser in making important decisions.
3. Orientation is concerned with helping the new student in his adjustment to college life and ensuring understanding of his opportunities and requirements.
4. Competent counseling assists the individual in achieving his best educational, vocational, and personal adjustment.

**Handbook of Indian Universities*, compiled by U. S. E. F. I., Allied Publishers, 1963.

**News article in *The Statesman*, December, 1963.

5. Supervision and integration of housing and food services by the administration assures that the search for these necessities does not interfere with the learning process. That the existing situation is most disruptive, is evident from the disturbing results of studies of living conditions conducted at Calcutta, Aligarh, Meerut, Trivandrum and Lucknow.

6. *Students Activities* : This is the provision of a coordinated program of worthwhile activities through unions, clubs, student organizations, and halls of residence.

7. Physical and mental health services emphasize the preventive aspect over the treatment aspect. The need for these services becomes evident in the light of class room absenteeism and college attrition or wastage.

8. The provision of adequate financial assistance assures that no able candidate is denied admission to college for lack of funds. The involvement in this point can be noted from the fact that 75% of the American student body receives financial aid—as opposed to an estimated 10% in India. It has been pointed out to us that money often is available here for this and other purposes, but applications are never made because the existence of these budgeted funds is not known.

9. The provision of remedial services in speech, hearing, reading and study habits, recognizes that the presence of defects in these areas may seriously impede the functioning of many able students and restrict the contributions which may be made by otherwise adequate personalities.

10. The placement function renders assistance to the student in finding appropriate employment when leaving school and assistance also in gaining admission to the post-graduate school of his choice.

To the questions : Are these services of value ? Do they work ? Let me make this observation. Virtually all of these services are available to students in virtually all of the American institutions of higher learning. It is reasonable to suppose that were they not effective they would have disappeared from the academic picture long ago. The Boards of Trustees (Syndicates) of American institutions generally include a number of businessmen who could not be expected to continue to endorse such programs if they were not adding to the academic net profit. The critic might argue that frequently such services, once established, are impossible to dislodge because of inertia and vested interests. The rejoinder would refer to the fact that when new colleges or universities branches are established many of these services are there from the beginning and the others are soon added as students indicate their need for them. There is statistical evidence for the value of student personnel services in terms of decreases in wastage, increases in student performance, lowered class absenteeism, favourable faculty opinion, but a detailed presentation is unnecessary here.

Can such services be established in colleges in India ? Certainly. They not only can but they are functioning in a number of institutions, the University of Baroda as previously noted and a small number of what we call private colleges—the St. Xavier's Colleges, for example.

In closing, let me refer to a problem that continues to increase in seriousness and which is foremost in the minds of students, teachers and administrators—student indiscipline. I must confess that I had never heard this term before coming to India. Student indiscipline is not a problem in the U. S. and I contend that the reason it is not is because the extra-curricular needs of the students are met before they grow to troublesome proportions. Rather than being left to drift on a sea of confusion, doubt, and anxiety in his early college years the student is given information and assistance in resolving his emotional and social problems.

I have noted also that we differ somewhat in our attitudes towards the student in terms of his maturity. It seems that when the Indian student enters the university it is assumed that by reason of his matriculation, he will behave in a mature manner and when he does not everyone is dismayed. The approach in the U. S. seems to be this : Every student is considered immature until proven otherwise. When he does prove it otherwise, everyone is pleased. As you know, the American student, typically, is 18 months to 2 years older than his Indian counterpart.

In case you are wondering, I should point out that the disturbance on the campus of the University of Mississippi was due primarily to adult indiscipline mainly on the part of the governor of the state.

Indian writers have pointed out that student indiscipline can be attributed in large part to the example set by their elders.

The behavior of adults, cannot be altered easily as it has been too long developing. A sound guidance program for students, however, who are still groping for a system of values can be of undreamed of value. The extremely formal relationship between student and professor keeps the student apart from the very person who could do much for him. The typical college professor in the U.S. is deeply involved with the personal as well as the academic life of many of his students. He encourages this state of affairs which is a part of student personnel services.

Students need an opportunity to participate in educational planning, to govern themselves within broader limits, to control their destiny in some small way, so that early in their lives they might develop abilities and attitudes appropriate to citizens of a democracy. The old authoritarian system prepares them to obey but the present system encourages them to rebel, to destroy. There seems to be no provision for or guidance toward participation in orderly student government here. This is one of the vital goals of education in the U.S. and should be so here.

Now let us look at the obverse side of this coin.
When there is no system of selecting the most able and emotionally stable candidates for higher education ;
when the new students are given little or no direction as to what might be expected of them when they are not told the rules of the game ;
when they must spend a disproportionate amount of time feeding themselves, seeking adequate housing or a quiet place to study ;
when there are not adequate and positive outlets for their youthful energies ;
when there is no concern for their physical or mental health ;
when they have no one to turn to with their personal problems except someone with even more problems ;
when they are forced to make decisions of great importance at critical points in their careers without sufficient information ;
when financial worries constantly confront them ;
when the faculty does not understand the students and the student has no way of communicating with his professor ;

when they are given no vocational guidance ;
when they have no democratic means of participating in the decision making process ; and
when the majority of the student body is easily controlled by a few political agitators, *effective learning is seriously impaired and student indiscipline is inevitable.*

It should be apparent that it is not a matter of whether student personnel services should be established or expanded, but only a question of how soon.

Guidance Review
Vol. 2. No. 2.

ADMISSIONS TO INDUSTRIAL TRAINING INSTITUTES BASED ON APTITUDE TESTING

*A. S. Lall**

Introduction

Admissions to Industrial Training Institutes, were previously made on the recommendations of Selection Committees which considered, among other things, an applicant's academic performance in the school examination, his personality and aptitude for the trade. More often than not, selection was an "elimination process", certain categories of applicants, namely those who had not attained a specified educational standard (Matriculation or Higher Secondary) or had not taken some prescribed subjects (Science, Mathematics, etc.), not being considered. The aptitude of an applicant was generally ascertained, to the extent possible, after his admission.

On the recommendations of the Shiva Rao Committee, the D. G. E. & T. had obtained the services of an I. L. O. expert, Dr. D. W. McElwain, to advise and assist it in the construction and validation of aptitude tests, for use in the selection of candidates.

A battery of four aptitude tests (NN, AR, AN and NS), was finally selected for administration to the candidates who had applied for admission to eight engineering trades—Draughtsman (Civil), Draughtsman (Mechanical), Fitter, Turner, Electrician, Motor Mechanic, Machinist and Instrument Mechanic. These were to be administered to the applicants seeking admission to these 8 trades, in one I.T.I. in each State. In the case of Delhi, however, it was decided to administer the tests to all the applicants who had applied for admission to all the engineering trades in all the I.T.Is. The number of candidates involved was over 12,000. Since the session at I.T.Is. was to start on 1st August, 1963, and it was felt that admission arrangements should not be disturbed, the time at our disposal was very limited. Probably, history was created by testing such a large number of candidates in such a short time.

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The Delhi Directorate's acceptance of aptitude testing went beyond the recommendations of the D. G. E. & T., for not only were aptitude tests administered to all the candidates (in other States, these were confined to applicants for admissions to one I. T. I. only), but also for admission to all engineering trades (D. G. E. & Ts. recommendations were for eight trades only), in all the Industrial Training Institutes. Even though such a comprehensive programme of administration of tests involved gigantic administrative and organizational effort and problems, the entire admission programme was adhered to (over 2,300 candidates had joined I. T. Is. during the first week of August, out of a total of 2,446 sanctioned seats, even though the testing was completed on the 25th July, 1963 at 6 p. m.).

Administration of Tests

In the first round of tests held at one Industrial Training Institute, 1755 applicants were tested. In the second round of tests, held simultaneously at two Industrial Training Institutes, over 5000 candidates appeared in the tests. In both the rounds, on all days, the same battery of tests was administered. Of the 10,338 candidates who were called for the tests, 5,026 appeared, accounting for nearly 50% response. The percentage of candidates who qualified in the tests for various trades, was 36% for Draughtsman (Civil), 37% for Motor Mechanic, 30% for Fitter, Machinist, 42% for Turner, Tool Maker, Die Fitter, and 49% for Electrician.

Not only were the applicants who had applied for admission to I. T. Is. called for aptitude tests, but also those who had separately applied for admission to diploma courses (in Civil, Mechanical and Electrical Engineering) in the G. B. Pant and Pusa Polytechnics, (administered by this Directorate) and those who were seeking 3 years' apprenticeship training in industrial establishments under the Apprenticeship Act 1961, but could not be admitted to the Polytechnics or provided apprenticeship for want of sufficient number of seats—the aim being to offer every applicant a reasonable chance of admission to some trade. Judging from the response, it appears that the Polytechnic and apprenticeship applicants were not very keen for craftsman training. Obviously, the poorest response was from the polytechnic applicants, perhaps because these applicants had made up their minds to seek admission only in a diploma course, and had arranged for admission in institutions outside Delhi. The response from apprenticeship applicants was also poor, because, unlike apprenticeship trainees, all I. T. I. craftsmen-trainees are not promised or given stipends.

Issue of Call Letters

Roll numbers were allotted to each applicant. An effort was made to call all applicants to a trade in one session or on one single day. For each session, a new thousand series of roll numbers was allotted, so as to simplify reference and recording. The allotment of roll numbers or centre, which were not restricted to applicant's residence, was done tradewise. Whenever an applicant made a request to appear in a centre other than the allotted one, for reasons of convenience, it was readily accepted. In such cases, result sheets of applicants concerned were later on merged with the result sheets of centre originally allotted. Even when applicants wanted to appear on a subsequent date, to suit their convenienee, they were admitted without hesitation and their result forms transferred to the appropriate thousand series.

Allotment of roll numbers and issue of call-letters involved a great deal of clerical work and occupied 40 full-time trainees of Commercial and Secretarial Institute for over 3 days. To avoid this difficulty, it is proposed that in the future roll numbers may be allotted by the office at which applications are received. As soon as an applicant hands over his application at an Employment Exchange/ I. T. I., he may be asked to fill in a self-addressed unstamped envelope which can be used later for calling candidates for the tests.

Selection and Posting of Trainees

In all, **3050** candidates qualified in these tests, 713 in the first and 2237 in the second series. Sorting of applications of qualified candidates and their posting was done in the following manner :

As a first step, applications of candidates who had failed to appear for the tests and of those who had actually failed to qualify for admission in any trade, were sorted out ; these numbered over **7000.** These applications were tagged in various thousand series ; call-letters were issued to applicants requesting them to appear before the Selection Committee at Pusa for consideration against the so-called "unpopular" trades. Before the selection, each day, such applicants were given talks, apprising them of their performance in the tests, their chances of admission to I. T. Is. and the prospects for employment and advancement in the so-called "unpopular trades", etc. The response of the applicants was encouraging. In the first series of selection, after the first round of aptitude testing, of the 2200 who were called before the Selection Committee at Pusa, 410 accepted the offer for training in these trades, and were posted straightaway to various I. T. Is. It may be of interest to note that none of these applicants was below middle school standard. As a result of this procedure (selection of candidates first for unpopular trades), it was possible to fill most of the unpopular trades with applicants who had some education—the educational standard of applicants admitted to the unpopular trades is higher now than before, most of them are middle school leavers and quite a large percentage matriculates, a few are intermediate and two are graduates.

As a second step, applications of candidates who qualified in the trades of their first choice were sorted out and retained in different folders, using post-office sorting techniques. Applications of those who did not qualify in the trade of their first choice, but did qualify in the second preference trade, were also sorted out, and kept in different folders, entitled "Fitter—second preference", "Turner—second preference", "Machinist—second preference", etc.

Applications of all those candidates who did not qualify in the trades of their first or second preference were sorted out and captioned "OTHERS" separately ; on each application remarks were entered in red-pencil, after checking with their result form, "Qualified—Fitter. Turner, Machinist", "Qualified Fitter Only", "Qualified Draughtsman (Civil) only", "Qualified all trades, but not eligible (because of lack of educational qualifications, or subjects)", etc. Such applications numbered **870**.

Posting of candidates, where the number of candidates who qualified for the trade (first preference) did not exceed the sanctioned seats, was easy. They were posted straightaway to various I.T.Is. located near their place of residence, as far as possible. Postings in the trades of Electrician, Turner, Die Fitter were made thus. The short-fall, if any, was met by the posting of candidates who had qualified in the trade concerned, as their "second preference". As the number of qualified fitters was far short of sanctioned seats, all candidates who had given fitter as their second preference trade were also posted.

Similarly, "Second preference" applicants were posted in the trades of Machinist, Tool Maker, Instrument Mechanic, Radio Mechanic, etc.

Where the number of qualified candidates in the trade of their first choice was larger than the sanctioned seats, as in the case of Motor Mechanics, all higher secondary passed candidates were posted : and for filling the remaining unfilled seats, matriculates (*i e.* those who had passed some public examination conducted by a Board/University) were posted on the basis of merit, *e.g.* total marks/division scored in the matriculation examination.

Similarly, where the number of higher secondary passed candidates, qualifying in the aptitude tests exceeded the sanctioned seats as in the case of Draughtsman, Mehanical/Civil, Refrigerator Mehanic, postings were made on the basis of merit, according to division/marks obtained in higher secondary examination.

The remaining applicants who could not be posted in the trades of first choice, for want of seats, were considered against trades of their second choice, and even other trades (in which they had qualified), subject to the availability of seats in the trades concerned.

After adopting the above procedure, some seats were still available in a number of trades, *e.g.* Fitters, Machinists Instrument Mechanics (in far-off I.T.Is), and in certain unpopular trades. To fill up these seats, candidates of "other" category were called to ascertain their choice—and later on posted, depending upon the availability of seats in various trades.

Even after adopting this intricate procedure, a few seats were left unfilled in the trades of Fitter, Electroplater, Plumber, Mason, etc. To fill these a circular letter was issued to all candidates of "Other" category, advising them of the availability of seats in specified trades and I.T.Is (according to their performance in aptitude test, and depending upon the availability of seats), and asking them to report to the Principal concerned (should they be willing) for admission.

Advantages of Aptitude Testing

The primary advantage of admitting candidates on the basis of aptitude tests is the selection of the best applicants for admission to the workshop occupations, which is very essential in the interest of national productivity. This aim has been achieved to an appreciable degree, because only those candidates who had qualified in the aptitude tests for admission to the engineering trades were selected. In the case of Motor Mechanic, Draughtsman (Civil), Draughtsman (Mechanical), Surveyor, Radio Mechanic, Refrigerator Mechanic, etc. the final selection out of the qualified applicants was made on the basis of educational qualifications, *i.e.* Higher Secondary or merit list.

The second positive gain has been the selection of applicants for unpopular trades from amongst those who had failed to report or failed to qualify in the tests. Thanks to the system, it was possible to post for training those who had the minimum education required, *i.e.* Middle Pass. Not only does the percentage of candidates who joined these unpopular engineering trades exceed the number of seats sanctioned but middle school leavers and matriculates have joined in an increasing number as Blacksmith, Carpenter, Moulder, Welder, etc.

Because of the aptitude testing and also due to rigid adherence to the basic principle (not to admit anyone who did not qualify in the test) it has been possible to resist pressure for admission from the candidates, parents, etc. There has been no complaint against the system of admission based on the results of aptitude testing.

Because of this system, it has been possible to arrange the posting of the candidates without the delay which would otherwise have been caused because of the elaborate procedure adopted by the Selection Committees.

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A NOTE ON ITEM ANALYSIS

D. W. McElwain[*]

(Our readers are probably aware that a programme for the development of aptitude tests is now under way at the Directorate General of Employment and Training, New Delhi, for use in selection of craftsmen trainees in the Industrial Training Institutes. The original test battery which was developed under the guidance of Dr. McElwain involved a method of item analysis which we feel would be of interest to our readers as it is different from those generally used and is more simple.

—Editors)

An item analysis yields information about each item in a test in the form of

(i) a difficulty index and

(ii) a validity index

The *difficulty index* tells us how hard the item is, and as we shall see an item which is too easy or too hard is regarded as unsatisfactory.

The *validity index* tells us how good the item is. A high validity index is yielded by an item where "good" testees get the item right and "poor" testees get the item wrong. In other words, the item has high discrimination. (Perhaps "discrimination index" would be a better term than "validity index".)

On the other hand, a low validity index shows that for the item, just as many "poor testees get the item right as do "good" testees. The item does not discriminate between testees in the required way. In other words, the item "does not work".

Occasionally we may find items which discriminate negatively. And the inclusion of such items actually reduces the power of the test. Here the item works against the test. And the test as a whole is thus improved by the exclusion of the item.

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[*] Prof. McElwain is the Head of the Department of Psychology, University of Queensland, Australia. He worked as an ILO expert in Aptitude Testing at the Directorate General of Employment and Training from January to October 1963.

In practice, the difficulty and the validity of an item are determined in the same item analysis, and so we shall treat the two topics together.

Let us take a small example to illustrate the main points of the method of item analysis. Suppose that we have a test with 6 items and give the test to 10 testees. For each of these 10 testees, we mark the items as right or wrong. Each testee thus has a score on the test and the testees may accordingly be arranged from good to poor.

Thus we may have—

Item	Poor — Person — Good										Total
	A	B	C	D	E	F	G	H	I	J	
I	●	+	+	+	+	+	+	+	+	+	9
II	●	●	●	●	+	+	+	+	+	+	6
III	●	●	●	●	●	●	●	●	+	+	2
IV	●	+	●	+	●	●	+	●	●	+	4
V	●	●	+	+	+	+	●	+	+	+	7
VI	●	●	+	●	●	●	●	+	+	+	4
Total	0	2	3	3	3	3	3	4	5	6	32

We have a test with 6 items, numbered I - VI and we have 10 testees A – J. The testees are arranged from left to right in increasing order of total score. Note that there is ambiguity in the order of placing the persons when they have the same total score *e.g.* B and C, or D, E, F and G. This ambiguity is not important however in practice, provided that there is a reasonably large number of items, say 30 or more. Where the scores are equal the testees should be arranged at random, for instance, by the initial letter of their names.

We enter in each cell whether the candidate had the item correct (+) or otherwise (●). We add across each row to a total which tells how many persons had that particular item correct. We add each column to get each testee's score. The sum of the sums in rows and the sum of the sums in columns should be equal which is a useful arithmetic check.

Now a testee may mark an answer and his answer may be right or wrong, or he may not mark it at all. How shall we treat an unanswered question—ignore it or mark it wrong ?

In conducting an item analysis study we handle this problem by giving sufficient time for all (or substantially all) candidates to finish the test, and then assume that any question not answered has been attempted by the testee but that he cannot handle it. Therefore we regard unattempted answers as wrong or incorrect. This assumption, however, may be wrong, and seriously so, if the testees have not been given sufficient time to attempt all items.

Under ordinary actual testing conditions with speedpower conditions the average candidate will finish only 50 - 70 per cent of the items and only the best will reach 100 per cent. Thus special conditions have to be set for item analysis.

Let us return again to our small example.

Item	Person										Total
	A	B	C	D	E	F	G	H	I	J	
I	●	+	+	+	+	+	+	+	+	+	9

Nine persons have the item correct. One has not. The nine who have item correct are the top nine persons, and the one wrong the poorest. The item is therefore a perfect discriminator.

We note that the item is one which 90 per cent of the persons get right and 10 per cent wrong. So we can say that the difficulty of the item is 90 per cent. A high difficulty index means that the item is easy and a low one that it is difficult (It would perhaps be better to call the index an index of "easiness", but the term difficulty index is now widely used and understood).

Now look at items II and III.

Item	Person										Total
	A	B	C	D	E	F	G	H	I	J	
II	●	●	●	●	+	+	+	+	+	+	6
III	●	●	●	●	●	●	●	●	+	+	2

These items are also perfect discriminators but differ from item I and from each other in having different levels of difficulty. Item II is harder than item I and Item III is harder again than both Items I and II.

Now look at item IV.

Item	Person										Total
	A	B	C	D	E	F	G	H	I	J	
IV	●	+	●	+	●	●	+	●	●	+	4
Rank	10	9	8	7	6	5	4	3	2	1	

Four persons get the item right but they are not exclusively the top 4. Indeed the second highest person I gets the item wrong, the second worst B gets it right. If the item were a perfect item the top 4 persons would have it correct and no others. It is useful to put a heavy line or a red line at the point of discrimination (in this case between F and G.)

We look at the 4 top cases G H I and J and find that 2 have it correct (as it should be) and two have it wrong. These 2 who have the items wrong are called discrepancies. We look at the poorest 6 who would have the item wrong, if the item were perfect, but we find that only 4 have it wrong and 2 have it correct. These 2 who have the item correct constitute the discrepancy in the lower end. The discrepancy of "wrongs in the upper group" and the discrepancy of "rights in the lower group" are always equal (and so constitute a useful arithmetic check).

	Lower Group	Upper Group	Total
Giving Right Answer	2	2	4
Giving Wrong Answer	4	2	6
Total	6	4	10

This table shows that of the four giving correct answers, 2 were in the top 4, and 2 were in the lower 6. And of the six giving the wrong answer 4 were in the lower group and 2 in the upper group. More generally :—

	Lower Group	Upper Group	Total
Giving Right Answer	d	a	a+d
Giving Wrong Answer	b	d	b+d
Total	b+d	a+d	T

Where T is the total number of persons and d is the discrepancy.

Note that the totals of the rows (a+d) and (b+d) are the same as the totals of the columns (b+d) and (a+d), and this must be so because we define the upper group as being equal to the number who give the right answer.

What we desire to get so as to have highly discriminating items is "d", the discrepancy, as small as possible, or rather we will select and retain in our test items where "d" is small.

We cannot however consider the absolute size of "d" only. For instance where (a+d) is very large or very small, "d" must be small. "d" must be considered in the whole pattern.

A very convenient device exists for doing this - called the coefficient ϕ (Greek letter—Phi).

The general form of ϕ for any 2×2 table is —

c	a	a+c
b	d	b+d
c+b	a+d	T

$$\phi = \frac{ab-cd}{\sqrt{(c+b)\,(a+d)\,(a+c)\,(b+d)}}$$

In our particular table (which differs from the general table in that c=d, and in that the row totals are equal to the column totals) —

d	a	a+d
b	d	b+d
b+d	a+d	T

and this is the measure we shall use to measure the validity of discrimination of each item.

The ϕ coefficient takes an upper limiting value of + 1.00 when the item is a perfect discriminator *e.g.*, for Item II, ϕ is worked out as under :—

	Lower Group	Upper Group	Total
Right answer	0	6	6
Wrong answer	4	0	4
Total	4	6	10

$$\phi = \frac{6\times4-0\times0}{6\times4}$$
$$= 1.00$$

ϕ is zero when proportionately as many of the good candidates have the answer correct as of the poor candidates*

	Lower Group	Upper Group	Total
Answer right	3	3	6
Answer wrong	3	3	6
Total	6	6	12

Where

$$\phi = \frac{3\times3-3\times3}{6\times6}$$
$$= 0$$

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* We have put 12 cases in this example as it is impossible precisely to have $\phi=0.00$ when there are 10 cases.

Intermediate validities occupy values between zero and + 1.00. For instance Item IV shows

$$\phi = \frac{4 \times 2 - 2 \times 2}{6 \times 4}$$
$$= +0.17$$

Items which have negative validity will have negative values. For instance if we had

Item	Person										Total
	A	B	C	D	E	F	G	H	I	J	
X	+	+	●	+	●	●	+	●	●	●	4

The tabulation would be

	Lower Group	Upper Group	Total
Answer correct	3	1	4
Answer wrong	3	3	6
Total	6	4	10

Where

$$\phi = \frac{1 \times 3 - 3 \times 3}{6 \times 4}$$
$$= -0.25$$

The lower limit of ϕ is − 1.00 but this value may be attained only where the discrepancy is maximal and where precisely a half of the persons have the items right. (There are other limitations to ϕ taking negative values where the difficulty departs from 50 per cent but these are not important in practice since quite generally any negative value leads to the rejection of the item.)

The ϕ coefficient is a measure of the relatedness of the item to the test as a whole. (It is in fact a particular case of Bravais-Pearson product moment correlation coefficient for a 2×2 table).

The ϕ coefficient has one further great advantage in that a test through X^2 for the significance of its departure from zero is available since approximately

$$\phi^2 = \frac{X^2}{N}$$

where X^2 (Greek letter – Chi) is distributed with one degree of freedom.

We may then find a value of ϕ, for some given number of cases, above which the item may be said to be significantly related to the test.

In a fairly usual case we may have 80 testees given a test for item analysis.

X^2 must reach a value of 3.841 to be significant at the 5 percent value. We can compute the corresponding value of ϕ.

$$\begin{aligned} \phi &= \sqrt{\frac{3.84}{80}} \\ &= \sqrt{0.048} \\ &= .218 \end{aligned}$$

And for a 1 per cent significance ϕ must reach the value $+0.288$

A "rule of thumb", that is rather conservative, is to require ϕ to reach the value $+ 0.30$ for item acceptance where there are say 60-80 cases.

Readers will recognize that the method outlined here differs slightly from the standard method which uses upper and lower fractions (usually 27 per cent) for it is one designed deliberately to establish Gutmann type monotonic scales. Under certain conditions (e.g. where the test maker is aiming to make a test with maximum discrimination at the median) both methods give the same results. In most cases the results are not much different. The method given here - which might be called "discrimination determined at the difficulty point" - is however more refined, and allows a better "microscopic" view of the components of a test. In our view it is more precise. It uses more information and as such it is likely to give better results, and in any case no worse.

RESEARCH NOTES

Stabilization of abilities and interests in Indian children.

The multipurpose system of education which requires the pupil to make a choice of a course at the end of class VIII is based on the assumption that the abilities and interests of pupils have become clearly differentiated by the time they reach the age of 13+ or 14+ and that these differences in abilities and interests become stable around these ages, thus making possible prediction of educational and vocational outcomes with some degree of certainty.

The data available from investigations conducted in other countries do not support these assumptions. Though the evidence is by no means unequivocal, there is some justification for the belief that various abilities and interests tend to stabilize at different ages. In view of the great need for evidence regarding stabilization of abilities and interests in Indian children, the CBEVG has undertaken a study in this area on school children in Delhi.

The abilities to be studied include verbal, numerical, mechanical, spatial and clerical. The instruments, which include eight tests of ability and two interest inventories, have been administered to approximately 2500 students of 13+, 14+, 15+ and 16+ studying in classes IX, X and XI respectively of five higher secondary schools of Delhi.

The data are to be analyzed for each ability and for interests to determine whether boys of a particular age or class are significantly different from boys of other ages or classes in the variability of their performance on the different tests.

A longitudinal study has also been planned—for this the present sample of class VIII students will be tested on the above mentioned ability and interest measures each year till they reach the final year of the higher secondary school.

* * * *

A survey of technical potential available in the delta classes of the higher secondary schools of Delhi.

Knowledge of the extent of technical potential available in our country would be useful in planning facilities for technical education.

Since the CBEVG does not have the resources for conducting a nationwide survey it has undertaken a survey of the technical potential in the Delhi schools.

A Mechanical Aptitude Battery comprising of five tests has been administered to the students of 14 urban and 4 rural schools, which represent a random sample of 10% of the total number of higher secondary schools of Delhi. On the basis of the scores on the mechanical aptitude tests obtained by the students of a technical higher secondary school, Delhi and the follow-up data regarding success in the technical course, the cut-off scores to be used for identifying individuals with technical potential have been determined.

As a by-product of the survey, norms for the tests in the battery for Delhi schools will be developed.

* * * *

Hindi version of Cattell's 16 P. F. Test. Form A, B and C.

The work on the Hindi adaptation and standardization of the 16 Personality Factor Questionnaire—Forms A and B—was started at Banaras Hindu University in 1955, by Profs. S. Jalota and S.D. Kapoor. Norms on all the 16 factors in the form of Stanines are ready for both the Forms (A & B) on a sample of 1000 college students. Reusable and consumable test booklets, answer sheets, manual and scoring keys for the test have been published by the Psycho - Centre, Varanasi.

Cattell has also developed Form C, a shortened version of the 16 Personality Factor Questionnaire. Unlike Form A and B, this Form contains only 106 items, 96 items giving the 16 factor scores and 7 items contributing to a "motivational distortion" score.

Though for important researches it is always urged that the full length test—the Forms A, B and C—should be used, there are some industrial screening situations where the shorter test (Form C) is widely applied. Profs. S. Jalota, O. P. Kapoor and S.D. Kapoor are therefore developing a Hindi version of Form C.

* *

Hindi Version of the Neuroticism Scale Questionnaire (N.S.Q.)

Scheier and Cattell have announced that their new N.S.Q. (Neuroticism Scale Questionnaire) has replaced their N.P.F. (Neurotic Personality Factor Test) which, too, was derived from the 16 P.F. Questionnaire on the basis of the 6 factors that differentiated neurotics from normals. The N.S.Q. has been designed to give a properly weighted total score on these 6 dimensions. Unlike the 16 P.F. test, it does not set out to measure the entire personality but deals only with that portion of it which expresses neurotic trends. N.S.Q. scores discriminate not only between neurotics and normals but also between varying degrees of neurotic trends in persons usually classed as normal. It can therefore be applied to the large number of essentially normal persons for whom assessment of neurotic tendency is nevertheless important.

In the light of its utility an Indian adaptation is being made by Profs. S. D. Kapoor and Kamlesh Kapoor. The translation of the test into Hindi has been completed. Ten more items, selected from a pool of 150 items, have been added to the original 40 items. The test is in the stage of item analysis.

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NEWS FROM HERE AND THERE

Andhra Pradesh

The Osmania Graduates, Association, which has so far been mainly concerned with organizing social and educational programmes for youth, has recently extended the scope of its activities by establishing a Guidance Centre for school and college youth.

The main objective of the centre will be to provide guidance to students on educational, vocational and personal problems. The services of the centre will be available to students free of charge.

The staff members of the Psychology Department of Osmania University and the Directorate of Employment Services, A. P., will serve as honorary staff of the centre.

* * * *

Delhi

A survey of teacher education conducted by the Central Institute of Education, Delhi revealed that out of 122 secondary teachers training colleges in the country 24 institutions offer specialization in educational, vocational and child guidance.

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National Council of Educational Research and Training has sanctioned grants-in-aid for various research projects in the country. Some of the projects included are :

Institute		*Project*
K. G. K. College, Moradabad	–	Construction and Standardization of Performance Tests of Intelligence for children of age group 3 to 10.
S. T. T. College S. U. B. Vidyapeeth V. Vidyanagar		An investigation into the Prediction Potentiality of S. S. C. E. Scores and to prepare selection tests for various university courses.

College of Educational Psychology and Guidance, Jabalpur	Construction and standardization of differential aptitude tests.
A. G. Teachers College, Ahmedabad	A study of gifted children.
Deptt. of Education, Gorakhpur University, Gorakhpur	The significant correlates of secondary education failures.

* * * *

Directorate-General of Employment and Training

A Pilot Project designed to provide guidance to school-leavers jointly by educational authorities and the National Employment Service is being tried out in a few schools in Delhi, Punjab and Bihar. The guidance programme consists of talks by Vocational Guidance Officers to the pupils of the school leaving class and their parents, and intensive group guidance activities involving giving of occupational and employment market information by the School Counsellor, followed up by a joint interview by the School Counsellor, and the V. G. Officer. A questionnaire is administered to the pupils at the beginning and at the end of the programme to evaluate the results. The Project is being conducted under the guidance of Mr. G. E. T. Whiting, the I. L. O. Expert in Vocational Guidance attached to the D. G. E. & T,

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The Third Refresher Seminar in Vocational Guidance was held in Hyderabad from December 28, 1963 to January 8, 1964. It was attended by 23 Vocational Guidance Officers from five States, namely, Madhya Pradesh, Andhra Pradesh, Mysore, Madras and Kerala. The objectives of the Seminar were to refresh the knowledge of the V. G. Officers and to pool the experience gained by them for the benefit of all concerned.

* * * *

The First All-India Seminar on the work of University Employment Information and Guidance Bureaus was held in the Banaras Hindu University from 13th to 15th January 1964. The objective of the seminar was to discuss the scope, nature and problems of rendering employment and vocational guidance service to University students and alumni. The seminar was presided over by Dr. V. K. R. V. Rao, Member, Planning Commission, and inaugurated by Shri Jaisukh Lal Hathi, Minister of State for Labour and Employment. Besides officials of the National Employment Service, representatives of the University Grants Commission, 20 universities in which Employment Information and Guidance Bureaus are functioning, the Central Bueau of Educational and Vocational Guidance and other agencies also participated in the seminar.

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Madhya Pradesh

A seminar on the maintenance of cumulative records was held at Raipur from September 18th to 20th, 1963 under the auspices of the P. G. B. T. College, Raipur. Twenty-two local teachers attended the seminar.

It was followed by a meeting of the Principals, Forum, at which the role of the Principal in the organization of the guidance programme was discussed.

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A five-day seminar on Educational and Vocational Guidance was held at Bhopal from November 5th to 9th, 1963 under the auspices of the Extension Services Department P. G. B. T. College, Bhopal. Fifty-two teachers attended the seminar.

Professors H. S. Mishra and R. Krishna of the College of Educational Psychology and Guidance, Jabalpur, served as resource persons.

The speakers at the seminar included the Director of Public Instruction, Bhopal, the Principal, Regional Training College, Bhopal, the Secretary, Board of Secondary Education, the Principal of the Science College, Bhopal and the Employment Officer.

* * * *

The career master in the Multipurpose School, Khandwa is conducting a follow-up study of the alumni of the school for the purpose of obtaining information about the types of training and jobs which the former students have taken up.

Another study is in progress to determine the effectiveness of the guidance given to the students of class IX.

The career master has also organized a programme of home-visits by teachers to promote better parent-teacher contact.

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Maharashtra

The fourth course for the Diploma in Vocational Guidance (Maharashtra Government) being conducted by the St. Xavier's Institute of Education, Bombay, ended on the 31st March, 1964. Eight trainees have undergone the course, which is of one academic year's duration and will be available for employment as counsellors in schools and colleges, rehabilitation agencies, and guidance and employment bureas. The next course commences in June, 1964.

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An exhibition on careers entitled the "A. B. C. of Careers" was organized by the St. Xavier's Institute from March 2nd to 10th, 1964 for the pupils of the local schools.

* * * *

United States Educational Foundation in India

During December, January, and February, the United States Educational Foundation sponsored a series of seminars in student personnel services at five universities.

Conducted by a team of five American Fulbright professors, the non-techical conferences which proved to be highly successful were designed to acquaint college and univereity administrators and teaching staff with a broader concept of education which is particularly attentive to the physical, social, and emotional development of students as well as to their intellectual development.

A comprehensive student personnel programme includes the following functions and services : the selection of candidates for admission to graduate programmes, maintenance of student personnel records, counselling and guidance, orientation of new students to their new environment, provision of adequate housing and food services at low cost, a programme of financial aid, an up-to-date physical and mental health programme, remedial services in reading, speech, hearing, etc., and assistance with employment or postgraduate plans.

Through a series of lectures and intensive discussion periods over the 3½ day span of each seminar, the American specialists in education and psychology pointed out the extent of such services in the United States and their effectiveness in facilitating good teaching and efficient learning, reducing wastage, increasing student morale, and eliminating serious student indiscipline and unrest.

The host institutions were Gujarat, Patna, and Utkal universities and the Universities of Kerala and Rajasthan. The participants were Dr. Graham B. Bell, Osmania University, Dr. Joseph D. Dameron, University of Kerala, Dr. James B. Klee, University of Allahabad, Dr. Thomas C. Schreck, Baroda University and Dr. Givens L. Thornton, C.B.E.V.G.

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ABOUT OURSELVES

A seminar on Modern Viewpoints on the Use of Tests in Guidance was organized by the Bureau at Delhi from January 20th to 25th, 1964. Twenty-four participants from the State Bureaus of Guidance and private guidance agencies attended the seminar. The inaugural address was delivered by Dr. Shib K. Mitra, Head, Department of Psychological Foundations.

The opening day's programme included a talk on "Human Abilities and Social Needs" by Dr. B. Kuppuswamy, Director, India International Centre, New Delhi. Among the other speakers were Dr. A. H. S. Goshal, Principal Scientific Officer, Defence Research and Development Organization, New Delhi ; Mrs. Jeanette B. Spires, Counsellor, American International School, New Delhi ; Dr. Frank Woomar and Dr. Givens L. Thornton, Visiting Fulbright Lecturers, U. S. Educational Foundation in India.

Several staff members of the Bureau as well as of other units of the Department of Psychological Foundations also gave talks and initiated group discussions.

Dr. A. Sharma, Senior Research Officer of the Bureau, served as Director of the seminar. He was assisted by Kumari Janak Sethi, Counsellor.

* * * *

The following publications have been recently brought out by the Bureau :

1. Handbook for Counsellors (Price Rs. 1.60 nP.)
2. Hamare Swasthya Rakshak (Price Re. 0.55nP.)
3. The Army Needs Technicians Too !
4. Yatayat Karamchari (Price Re. 0.55nP)

These publications can be obtained from the Publication Unit, NCERT, 114 Sunder Nagar, New Delhi.

* * * *

We congratulate Shri M. C. Savita, Testing Assistant, on his new appointment as Junior Psychologist, Ministry of Defence, New Delhi, and welcome Shri M. S. Sirohi, who has joined us in the resulting vacancy.

We also congratulate Shri N.V. Ramaniah and Shri H.M. Kanade, Technical Assistants, on their new appointment as Senior Research Assistants in the National Council of Educational Research and Training.

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BOOK REVIEW

PROBLEMS IN COUNSELING – A CASE STUDY APPROACH by James F. Adams. New York: The Macmillan Company, 1962. 161 pp.

This is a collection of twenty-five counselling cases. Discussions of a variety of educational, vocational and personal problems handled by different counsellors using different techniques are presented. The author admits that the discussions are not exhaustive ; in fact, they are not meant to be exhaustive, since the intention is only to 'stimulate thinking.'

A majority of the cases discussed pertain to the secondary school setting and as such will be of much interest to those who undergo a school counsellor training programme. But unfortunately many of the discussions are rather cursory.

The author in the first chapter briefly discusses the different types of counselling ranging from strict authoritarianism to therapeutic eclecticism. He rightly points out that there is no one best counselling orientation for all problems and for all people. He is of the opinion that superficial problems may be best dealt with by the counsellor-centred method whereas deep-seated personal problems or involved educational and vocational decisions demand a client-centred approach. A natural sequel to this position should have been presentation of typical cases belonging to different areas and levels, dealt with by competent counsellors, using appropriate techniques. This has not been done. On the contrary, many cases are presented where the method of approach should have been quite different from the one adopted. The case of Bucky may be cited as an instance. There is no reason why a mentally gifted high school student who is a 'trouble maker of the first order,' and who has little respect for teachers should be counselled by the counsellor-centred technique. The problem seems to have been oversimplified when the counsellor reduces the situation to a decision-making one and prescribes a course of action. The discussion is quite unconvincing. Certainly a high school pupil with a Binet I. Q. of 150, whose achievement is just average and who has been consistently given negative comments about his behaviour by his teachers, merits better counselling.

Similarly, the case of Barry who has been given client-centred counselling presents a clear example of the wrong application of the non-directive counselling approach. Barry who was a successful football coach in a high school wanted to become a physician. He neither had a brilliant academic career in the college, nor was he intellectually above average. Interview with Barry revealed the fact that he became 'fascinated' with the medical field because of his marrying a nurse. The counsellor is convinced that the probability of Barry's success in a medical course, not to speak of medical profession is low. But he counsels "Whatever your decision is, it will be the right one". Barry went for medicine and failed miserably. There are also other instances of unwise adherence to techniques irrespective of problems and situations.

The merit of the book lies chiefly in its attempt to present and discuss a number of cases of educational, vocational and personal problems commonly encountered by school counsellors. Vocational choices not commensurate with abilities and achievements, juvenile delinquency personal and social adjustments are some of problems that demand the attention of almost every counsellor. It is certainly necessary that counsellor trainees should understand the problems, issues and techniques involved in counselling 'intellectually' and 'emotionally' before meeting them 'experientially'. This collection of case histories serves that purpose. The discussions in most cases are not very illuminating, but they certainly stimulate thinking.

This would have been a far more interesting and useful book, had the author selected a few typical cases dealt with by more competent and experienced counsellors and included details of the dynamics of the counselling process.

K. V. Nair*

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ABSTRACTS

Odell Uzzell, Influencers of Occupational Choice, *The Personnel and Guidance Journal*, Vol. 39, No. 8, 1961, pp. 666-669.

The major problem of the study is to investigate the stated influencers of occupational aspirations of a proportionate random sample of 301 senior males in 14 urban high schools. Questions and interviews were used to elicit data.

The data on the influence of known occupational models upon the occupational choices of respondents indicate that out of 301 respondents in the study, 211 or 70% knew occupational models. Of the 211 respondents, 162 indicated their choices were influenced by models, whereas 49 indicated they were not influenced by them. Thus a definite relationship is revealed between respondents' occupational aspirations and their knowledge of occupational models. The influence of models for aspiring automobile repairmen, brickmasons, and teachers was generally high, whereas that for radio technicians and engineers was generally low.

In addition to models, occupational aspirations were influenced significantly by other sources. Notable among these were mass media (radio, movies, television and periodicals) and persons in occupations other than those of respondents' choice.

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John F. Kinnane and Martin W. Pable, Family Background and Work Value Orientation, *Journal of Counseling Psychology*, Vol. 9, No. 4, 1962, pp. 320-325.

With Super's developmental approach to vocational choice as a theoretical framework, this study has attempted to determine the influence of family background on the development of work values.

The hypotheses formulated for the study were :

(i) Security-Economic-Material work values will be positively related to the degree of materialistic atmosphere in the home;

(ii) Achievement-Prestige work values will be positively related to the upward social mobility of the family.

(iii) Social-Artistic work values will be positively related to a combination of family influences, cultural stimulation and family cohesiveness.

(iv) Work conditions and Associates work values will be positively related to family cohesiveness.

(v) Heuristic-Creative work values will be positively related to the cultural stimulation in the home.

(vi) Independence-Variety work values will be negatively related to the degree of adolescent independence.

A biographical inventory and a work values inventory were administered to 121 eleventh grade boys in two high schools all between the ages 16 and 18. To determine the relationships between family variables and work values, Pearson product moment correlations were computed between each possible combination of predictor and dependent variables.

Five of the six specific predictions were verified. Thus the study as a whole tends to confirm the hypothesis that family influences are critical in the development of work values. This conclusion is strengthened by the fact that the values, with the exception of the heuristic-creative type, were found to be not significantly related to either general intelligence or school curriculum.

* * * *

Norman S. Endler and Danny Steinberg, Prediction of Academic Achievement at the University Level, *The Personnel and Guidance Journal*, Vol. XLI, No. 8 April 1963, pp. 694-699.

The present study sought to investigate the role of the ability factor (aptitude and previous achievement) in the academic achievement of students at the university level and to compare the college academic achievement of males and females.

It was hypothesized that aptitude and achievement would be significant predictors of first year college final grade average; and individual subjects grades, and that first year college final grade average of females would be significantly higher than those of males.

The sample consisted of 69 Ss, 45 males and 24 females. All 69 Ss had written the Province of Ontario Grade 13 Senior Matriculation Examinations.

Upon entrance to the university, standardised SCAT aptitude and STEP achievement tests were administered to the whole group. These measures together with the S's grade 13 high school average (HSA) served as the predictors of college academic achievement, *i.e.* final grade averages (FGA).

The major findings of the study were :

(1) The best predictor of FGA and individual college course grades was HSA.

(2) Among the aptitude and achievement tests, the best predictors of FGA were STEP Reading, SCAT verbal, and SCAT Total.

(3) For the Male sample the courses which were most significantly related to most of the predictors were Philosophy and Political Science, while for the Female sample the most frequently predicted courses were English and Psychology.

(4) Multiple correlations employing the HSA, STEP Reading, SCAT Verbal and SCAT Total predictors did not significantly raise the predictability of the FGA criterion. A verbal factor common to all the predictors might account for this phenomenon.

(5) Females had a significantly higher first year college final grade average than males, although they did not differ appreciably on their high school performance and college aptitude (SCAT Total).

(6) Males showed a significant drop in performance from the high school to the college level while females did not.

(7) Females were more predictable than males in that correlations between predictors and FGA were higher for females than males.

Shakuntala Bhatia
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QUARTERLY BULLETIN OF THE CENTRAL BUREAU OF EDUCATIONAL AND VOCATIONAL GUIDANCE

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GUIDANCE REVIEW

Editors :

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Statement of purpose :

Guidance Review is the bulletin of the Central Bureau of Educational and Vocational Guidance. It aims at meeting the need of professional workers in guidance all over the country for a medium of communication through which ideas and information about techniques, tools, programmes and research, as well as news about individuals and organizations, may be exchanged. The bulletin also aims at promoting understanding of guidance and awareness of its value among educationists.

Published quarterly in January, April, July and October. GUIDANCE REVIEW is sent free for a period of one year to counsellors, career masters, research workers and other individuals or agencies in the field of guidance as well as to training colleges and university departments of education and of psychology.

Manuscripts :

The editors welcome original manuscripts on matters of interest to guidance personnel. The types of material desired are : articles, descriptions and evaluations of guidance programmes, reports of completed research, notes on current research, reviews of books, pamphlets, tests and visual aids abstracts, and news items, Indian and foreign.

Manuscripts should be typewritten double-spaced, on one side of the paper, and sent to the Editors, GUIDANCE REVIEW, CBEVG, 33, Chhatra Marg, Delhi-6. Twenty-five reprints are supplied free to contributors of articles.

Guidance Review
Vol. 2 No. 4.

YOUTH VOCATIONAL CENTRES

*H. P. Mehta**

The Government of India with the assistance of the United Nations Children's Fund and the International Labour Organization has recently launched a pilot scheme to impart a specific type of education through what are commonly known as 'Youth Vocational Centres'. The objective of the scheme is to provide to children roughly between the ages of 11 and 14 (comparable to the middle school years), education which combines instruction in humanities with training in mechanical and manual skills. The latter is prevocational in character and is not intended as a preparation for specific vocational trades. Hence the institutions may be more appropriately called Youth Provocational Centres. Guidance workers will be particularly interested in the scheme, as vocational orientation and guidance have been made an integral part of the programme of the Centres.

Concern felt by ILO and UNESCO

The concept of Youth Vocational Centres has been evolved by the International Labour Organisation as a result of its studies concerning the need of the developing countries to provide some kind of training for the large numbers of children who are thrown into the employment market after only a few years of elementary education. The presence of large proportions of such children is characteristic of most Asian countries, which have not been able to provide a well rounded educational programme upto the statutory age. Concern for such children was voiced at the XIth Session of ILO Asian Advisory Committee which met in Geneva in 1961—"In most of the developing countries, notwithstanding greatly intensified efforts, there is still a long way before primary education upto the age of 14 or 15 years is a reality. Post Primary formal apprenticeship and vocational training schemes reach only a very small fraction of the child and youth pouplation. A great mass of youngsters start their work-lives or start seeking work with little or nothing behind them in the way of information about work and jobs, without even the simplest of vocational skills and with little or no knowledge of the employment needs and opportunities in their countries and communities."* It may be observed that the need for vocational orientation and guidance has been sharply highlighted in this statement.

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The UNESCO has also been seized with the gravity of the problem. It has been recognised by this body that the overall lack of educational and training facilities is a major difficulty in preparing children and young people for work-life. At the regional meeting of representatives of Asian Member States on Primary and Compulsory Education held in 1959-60, the fact was highlighted that "there are in 15 countries of the region some 87 million children who do not enjoy any educational facilities whatsoever and a large number of the 65 million going to school have to be satisfied with a very limited amount of education offered in the conditions of great hardship and poverty."**

According to the exploratory memorandum on Youth Vocational Centres brought out by the ILO, the basic aim of the Centres is to bridge the post-primary gap between school and work and to give a realistic vocational orientation and a practical vocational preparation of an elementary kind to primary school-leavers who are not likely to go on to secondary education or formal apprenticeship or other training. This kind of elementary vocational preparation is designed to make them more productive members of the labour force if they have to join the employment market at the early age of 14 or 15. The broadening of the work horizon of these children is also another basic aim which is sought to be achieved through the vocational orientation and guidance programme. By establishing educational centres which will impart rudiments of vocational skills combined with vocational orientation, it is also aimed to promote social stability and community development. It is expected that the Centres will have the effect of preventing haphazard migration of youth from rural and semi-rural areas to overcrowded cities.

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* ILO Asian Advisory Committee, Eleventh session Geneva 1961, Fourth Item on the Agenda (Annex-II).

** UNESCO : Report of the Regional Meeting of Representatives of Asian Members on Primary and Compulsory Education, Karachi, 28 Dec. 1959—9 Jan. 1960 (UNESCO/Ed/173).

The Government of India's concern

The Government of India has also felt concern for a number of years about the necessity for providing the proper type of education and training for children between the ages of 11 and 14 who do not have the opportunity to proceed to normal secondary education. It has been estimated that the proportion of children in the age group 6 to 11 who had the benefit of primary education was only 60 per cent at the end of the Second Plan. With the efforts to make primary education compulsory, the number of pupils in this age group who have received primary education may rise to about 80 per cent by the end of the Third Plan. However, the proportion of school-going children in the age group 11 to 14 which was estimated at 23 per cent at the end of the Second Plan is expected to rise only to about 30 per cent. Thus as many as 70 per cent of the children in this age group are expected to be out of school, to whom some kind of education or training ought to be imparted.

No less an administrator than our late Prime Minister realised the need for a certain type of training for these children who mostly because of economic necessity or lack of scholastic aptitude, cannot continue their studies through the middle school stage. In 1960 he stated : "This type of low grade professional training is urgently needed for economic reasons as we want such trained persons. It is equally necessary in order to develop the creative and imaginative side of a child's character. I think that an organised approach should be made to give this so called lower grade professional training to boys and girls between 11 and 16. There should be a multiple of subjects for training and the boy or the girl can make a choice."

This statement by the late Prime Minister was followed by the formation of a Working Group consisting of representatives of the Planning Commission, Ministries of Education, Scientific Research and Cultural Affairs, Food and Agriculture, Community Development and Cooperation, and Labour and Employment (D.G.E.&.T.), with a view to formulating suitable schemes for the children of this age group.

The educational needs of this group of children were also recognised by the Planning Commission which made the following recommendation in the Report of the Third Five Year Plan : "The question of providing facilities on a part-time basis for training in suitable vocations or by way of continuation classes is at persent being studied. It should be possible to organise such courses to an increasing extent at middle schools, basic schools, junior technical schools and other centres. The possibility of organising vocational training on full-time basis for children in the age group 11 to 14 should also be examined." *

UNICEF's offer

While the Working Group referred to above was endeavouring to evolve a suitable scheme for this group of children, the UNICEF conveyed to the Government of India through the ILO (India Branch) in September 1962 an offer of financial assistance for the establishment of Youth Vocational Centres. The amount of assistance proposed was of the order of a million dollars during the Third Plan period, with the possibility of increase in the subsequent Plan periods, if necessary. The proposal was considered in an inter-departmental meeting held on 6th September 1962 which was attended by representatives of the Planning Commission and the Ministries concerned, the Regional Director of the UNICEF for India, Afghanistan, Ceylon and Nepal, and the Director of the India Branch of the ILO. It was generally agreed that the scheme prepared by the Working Group for pre-vocational preparation of children in the age group 11 to 14 who do not continue their education through the post-primary stage, could be fitted without much difficulty into the concept of Youth Vocational Centres evolved by the ILO and supported by the UNICEF. It was decided that such centres should be established in India so as to serve the needs of rural as well as semi-rural and urban areas.

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* Chapter IXX, page 581.

The pilot scheme

A pilot scheme was soon drawn up according to which a total of 65 Youth Vocational Centres would be set up during the Third Five-Year Plan period. The project is being implemented as a Central Scheme of the Government of India in consultation with the State Governments and Union Territories. The Ministry of Education is concerned with the implementation of the scheme with the technical advice and assistance of the Directorate-General of Employment and Training which is also in charge of coordination. The scheme has been put into operation since August 1963 with the training of Vocational Trainers at the Central Training Institute for Craftsman Instructors at Kanpur.

It has been decided to attach these Centres to existing educational institutions such as high schools, higher secondary schools, multipurpose schools, etc. The head of the institution will be in administrative charge of the Centre. The proposed establishment of the 65 Centres during the Third Plan period has been phased. The first five Centres were set up in February 1964 and the remaining Centres will be opened at the rate of twenty at intervals of six months. The first five Centres have been attached to the following institutions :

(1) Ramakrishna Mission Residential Multipurpose School, Narendrapur, 24 Parganas, West Bengal
(2) M.G. Muthiah Chettier School, Madras
(3) Boy's Technical School, Secunderabad
(4) Sabu Siddique School and Polytechnic, Bombay
(5) Govt. Higher Secondary School, Ludhiana

The instructional programme

The programme at these Centres consists of both part-time and full-time courses, although at present only full-time courses have commenced. The course is of three years duration and consists of general education and pre-vocational training. The programme in general education consists of the following subjects :

(1) Regional language and English/Hindi
(2) Elementary mathematics
(3) Science (general)
(4) Social studies (history, geography and civics)

In the Centres located in rural and agriculture oriented semi-urban areas, it is envisaged that Science will be replaced by agriculture and animal husbandry. As only two hours a day will be devoted to general education in the full-time course and one hour a day in the part-time course, the subjects will not be taught as intensively as in comparable classes in other schools.

The pre-vocational training at the Centres consists of courses in :

(1) Basic fitting, including simple turning
(2) Sheet metal work
(3) Gas welding (low pressure)
(4) Smithy
(5) Moulding
(6) Carpentry

In the Centres located in the rural and in the agriculture-oriented semi-urban areas, the training will be imparted with particular relevance to agriculture, animal husbandry and rural industries. It has been suggested that for this purpose progressive farms as well as agricultural demonstration farms should be attached to such Centres.

The major aim of this training is not to turn out skilled craftsmen in trades, as mentioned earlier, but to familiarise the pupils with the general approach and background to the trades. In pursuit of this aim, the training will impart an elementary idea of the basic operations in the trade and also familiarise the pupils with tools commonly used in the trade. The training will instil in the pupils habits of accuracy and dexterous handling of tools. The jobs which the pupils will be instructed to turn out will be of a very simple type. In the Centres in which instruction will be biased to agriculture, the making of simple articles of agricultural use and repairing of agricultural instruments will be the focus of practical work.

Guidance service

The ILO paper on Youth Vocational Centres has emphasised that guidance service should be an essential feature of the programme of the Centres. Accordingly it has been decided that a Career

Master will be appointed in each Centre and that he will perform the following functions :

(a) Serve as a contact person bringing about liaison with the agricultural department, small scale industries and places of employment.

(b) Collect detailed information on employment and self-employment opportunities, further educational and training facilities, etc. in the area.

(c) Maintain a cumulative record of each child during his course of training, in order to study his aptitudes, interests, socio-economic condition, health, etc.

(d) Interview the parents frequently for obtaining data as also for counselling, as the children of this age group are very much under the influence of their parents.

(e) Study the educational, personal and social problems of the children and take such measures as may lead to the proper adjustment of the children to school requirements and to their obtaining the maximum benefit from the training.

(f) Assist in the placement of the pupils in employment or in apprenticeship or in the next stage of education.

(g) Although primarily appointed for guidance duties, the Career Master will also do a small amount of teaching.

In order to be eligible for appointment as Career Masters, candidates must be trained graduate teachers, and must have either three years of teaching experience or a Diploma in Educational and Vocational Guidance and one year of teaching experience.

Besides the D.G.E. & T., the Central Bureau of Educational and Vocational Guidance of the National Council of Educational Research and Training has been associated, as consultant, with the planning of the guidance service in the Youth Vocational Centres and the training of the guidance personnel.

Training of personnel

The staff provided for each Centre consists of four Instructors for imparting pre-vocational training, two Teachers for imparting general education and one Career Master.

The training of the Instructors is being carriedout at the first five Youth Vocational Centres which were established in February 1964. Hence these five Centres are also known as Regional Training Centres. At each Regional Training Centre 16 Instructors are being trained for a period of 5 months and for this purpose four Vocational Trainers have been appointed. These Vocational Trainers were themselves trained at the Central Training Institute for Craftsmen Instructors at Kanpur during the period July to December 1963.

The training programme for Instructors in the five Regional Centres will be repeated every six months till all the Instructors required for the 65 Centres are trained.

The training of Career Masters will be carried out at only one of the Regional Training Centres, viz., the one at Secunderadad. The training will be imparted by two qualified Counsellors who have been especially appointed for the purpose. Each training course for Career Masters will last for five months, of which three months will be devoted to the theory and practice of vocational guidance and two months to field work for the study of occupational, apprenticeship, employment and self-employment opportunities. The training of the first batch of Career Masters has recently commenced.

Prospect

The Youth Vocational Centres Scheme holds good promise of new developments in the field of education as well as guidance. If the scheme proves successful and is considered feasible for expansion on a large scale, the pattern of education and pre-vocational training which is provided in Youth Vocational Centres may be accepted as suitable for all middle schools in the country. In such an event, pre-vocational training will be regarded as a part of general education in the same manner as languages and social studies are at present. Provision of pre-vocational training on a large scale at the middle school level will have the effect of building up technical potential and ultimately of upgrading the level of technical skill in the country which is so necessary for our developing industrial economy.

The scheme also augurs well for the development of guidance service. For the first time extension of guidance services to students below the secondary school level has been given an official recognition through the adoption of the scheme. The scheme will also provide us with opportunities for obtaining valuable experience of guidance work with children of this age group.

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THE AUTOBIOGRAPHY AS AN AID IN ADOLESCENT COUNSELLING

*Dina M. Pavri**

Man is instinctively interested in his own welfare first despite all the planned attempts to develop a true spirit of altruism and objective interest in the world around us. Civilization implies, culture demands, and religion exhorts us to turn from this primary concern with self ; some succeed to a greater or lesser extent. It would appear, however, as we mature that our deepest happiness—regardless of what circumstances may befall us—is in direct proportion to the degree with which we successfully achieve this outward projection of thought.

Because the adolescent is at this period of development when he is vitally concerned about himself and his future relation to the world, the autobiography lends itself naturally to counselling. It is an account of the counsellee's life as he sees it. It is not only a method of securing important information about a student, but it can be developed into a means of widening his interests and better directing him to a search for Service, Beauty and Truth in whatever forms they may take. Self revelation leads to self understanding.

Adolescence is the appropriate age for writing the autobiography. The adolescent is in the rather painful process of emerging from childhood to maturity. He is developing physically, mentally and emotionally. Though fascinated by his new perspective, nevertheless he is vitally interested in himself as a person. This new person may be as strange to himself as he is to those concerned with his welfare. He is inclined to be introspective, moody perhaps and yet full of enthusiasm. often expressing himself in the superlative. Everything is "terrific", "the greatest", 'the very end". He may like to dramatize himself and often wonders what part in life he will fill. If his opportunities, heredity and environment are favourable, he has bright plans for the future ; but if he is less fortunate, he may easily become dejected unless encouraged to overcome his handicaps.

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It is a sensitive age, and while outwardly the youth may be gay and even blatant, it is nevertheless a time of stress and strain, and often tactful guidance and understanding are needed.

This opportunity to write about oneself provides a release of tension if the student is encouraged to be frank and accurate. In some cases it may be an outpouring of the soul in a more wholesome way than the average adolescent or college diary.

How to obtain the autobiography

The writing of the autobiography might be an extended project in any language, a unit for a group guidance instruction, or it could be requested by the counsellor himself. If it is done in the English class, the counsellor might obtain the teacher's cooperation by explaining the purpose and psychology behind this technique to secure useful results.

Through this channel of his autobiography can flow the history of his life, the chronological narrative of experience, his likes and dislikes, his problems, his interests and attitudes since childhood, his ideals, plans and goals. At the same time it can give an estimate of his present latent ability and creativeness. Much valuable information can be gleaned which will be of help to the counsellor in gaining insight into the student's problems.

If given in the language class, the students could first find suitable autobiographies of important people and report on them in oral composition. Then topics can be suggested for a rough outline or chapters. Later, these headings can be developed, but original, more dynamic titles can be devised by each individual. It should be made as flexible as possible. As many illustrations as possible should be included to enliven the story ; photographs or snapshots of parents, family, friends, the student himself at various stages, sketches, or any creative work are encouraged. The autobiography, according to Wolfe (8), channels more surely than anyother long paper the emotional energy which is the electricity of the writing process. Because the story of their own lives calls forth the essence of the student's individuality, the poor and gifted students, Wolfe believes, are equal in the potential intensity of their emotional involvement. To write persuasively and powerfully, the student must be permitted to grapple with the really moving experiences and thought streams that have been hitherto somewhat removed from classroom discussion.

Opinions of guidance authorities

Many authorities on guidance and counselling, and psycholgists stress the value of the autobiography. All point out that this is a desirable means not so much of obtaining specific facts about a pupil but of discovering how he feels, understanding his emotions, conflicts and aspirations. They warn, however, that information should be carefully checked with other data for accuracy and interpretation. For instance, a student may reveal that he considers being able to get along well with others very important and he wishes to be popular, but the sociogram on his class group may show him usually unchosen by others.

Strang (4) feels that the autobiography has a place in subjective observations and can result in successful therapy. The worker can begin at the individual's present level of reception and enter into his field of feeling and thinking. Strang (4) emphasizes that the writer's frankness and accuracy are essential. It gives the individual's outlook on life, and he can make his own interpretation of his personality; it helps him to "see life steadily and as a whole". "The genetic approach to study of interests gives the pattern of interest rather than isolated fragments". It is a valuable tool for use with reticent or resistive children. It is an indication of special talents as well as emotional difficulties. It describes the way an individual perceives certain situations, how his perception influences his attitudes and adjustments and makes possible analytical studies. Strang warns that some information may be misleading if accepted at face value, so must be checked for accuracy if used for diagnosis.

According to Froehlich (2) the autobiography is one of the most convenient means of securing information about a pupil. His experience has indicated that the spontaneous unguided response is best and generates more interest on the part of the pupils. All statements cannot be taken at face value; some are inaccurate, others are distorted, but useful clues are provided for further investigation. The pupils should be told that the autobiography will be filed in their cumulative record. Then the counsellor has a natural opportunity to review it with them, ascertain the truth of doubtful statements and acquire supplementary information through the fact-finding interview.

Traxler (6) believes "the autobiography is a natural and readily available means of obtaining data on the personal qualities of an individual—he may reveal important aspects of his personality, aspects that are valuable leads in counselling".

The use of the autobiography as a device for getting "inside self" information about the student has been pointed out by other writers. It is a "self-portrait" in which the writer selects what he wants to tell; it is not only a record of what he has done but also a report of how he feels about himself and his role. It must be made clear to the student that the purpose of the autobiography is for guidance and self-study. It should be prepared in a situation in which the student sees no threat and feels free to express his feelings. McDaniel (3) also points out that this self-report may be deceptive for both conscious or unconscious reasons, so it may be checked against the data of the school record.

The validity and reliability of the autobiography are determined in part by the conditions under which it is written. The more secure and happy the student, the more likely he is to report fully and accurately. The more unhappy and insecure the student, more likely he is to protect himself through fantasy, rationalization, identification or other mechanisms. Thus the autobiography may serve as a good source of material for accurate diagnosis of his special needs and interests. The factual information of a pupil can be secured through other techniques, but the autobiography gives the counsellor an understanding of his inner life—"his wishes, aspirations, prejudices, frustrations, conflicts, hopes and suggestive impulses". (7)

In a sense the autobiography is a "projective technique" because the counsellee describes events, people, and actions from his own point of view. This gives the counsellor an insight into the counsellee's personal and private world. The usefulness of it is dependent upon the counsellee's freedom and sincerity in expressing himself, so rapport is necessary. It should not be more than 4,000—5,000 words in length.

In interpreting the information, the counsellor may pose several questions about the counsellee :

(1) What appear to be the dominant needs of the counsellee ?
(2) How does he regard others such as peers, teachers, parents ?
(3) What does he think of himself ?
(4) What topics or aspects of life are conspicuous by their absence ?
(5) In what sort of a situation does he appear to be happiest ?

The autobiography tends to give information as to "why" the counsellee behaves as he does rather than other techniques which give more of the "how" of behaviour. However, any hypothesis of explanation of behaviour should be regarded very tentatively until there is information from other sources to back it up. The counsellor needs an understanding of the dynamics of personality to interpret this data and should not jump to hasty diagnostic formulations about the counsellee.

The information gleaned through this avenue of students' self-expression in addition to that supplied by achievement, aptitude, and personality tests should give the counsellor and teachers a fair indication of the needs, capability, and capacity of each child. As Gordon Allport (1) explains, the evolution of personality through "becoming" has a dynamic quality which involves continuing active unfolding process of growth in the pursuit of ideals. The autobiography can be a vital instrument in helping the counsellor guide the student to develop a sound sense of values and to formulate reasonable plans toward this goal.

Bibliography

1. Allport, Gordon W., *Becoming*, New Haven, Yale University Press, 1955.
2. Froehlich, Clifford P., *Guidance Service in Schools*, New York, McGraw-Hill Book Co., Inc., 1958.
3. McDaniel, Henry B., *Guidance in the Modern School*, New York, Drydon Press, Inc., 1946.
4. Strang, Ruth, *Counseling Techniques in College and Secondary School*, New York, Harper Bros., 1949.
5. Tolber, E.L., *Introduction to Counseling*, New York, McGraw—Hill Book Co., Inc., 1957.
6. Traxler, Arthur E., *Techniques of Guidance*, New York, Harper & Bros., 1957.
7. Warters, Jane *Techniques of Counseling*, New York, McGraw—Hill Book Co., Inc., 1954.
8. Wolfe, D.M., "Autobiography—The Fruitful Long Paper", *English Journal*, XLV (January, 1956).

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GUIDANCE AND COUNSELLING SERVICES IN VOCATIONAL SCHOOLS IN THE PHILIPPINES

*Pacifico G. Allarde**

Among the phases of the vocational education program that have contributed immensely to the development of young boys and girls in all aspects are guidance and counselling. As an integral part of the total program, guidance and counselling are chiefly concerned not only with the well-rounded development of these young citizens but also with providing them assistance in choosing, preparing for, entering upon, and progressing in the chosen occupation.

These services are provided to boys and girls even before they are admitted to the vocational schools. For instance, shortly before the close of each school year, the prospective elementary school graduates are contacted by the guidance personnel of vocational schools for the purpose of orienting them to the curricular offerings and facilities of their respective schools and also acquainting them further with the world of work, training for which is provided by the vocational schools. Orientation of this nature has proved very helpful to elementary school graduates in making appropriate choices of courses and has also facilitated their adjustment to the school.

The student applicants for admission are similarly provided with these services. Studies in the Philippines and abroad have shown that not every one can profit from vocational training program. Certain attributes have to be possessed in order to succeed. Gone are the days when it was commonly believed that vocational schools are for the mentally slow or the dullards. Gone also are the days when vocational training was characterized by continued hammering of the nail on its head. As a result of these findings, student applicants for admission to vocational schools are screened by sub-committees on guidance services in order to appraise their mental abilities, vocational interests, aptitudes, socio-economic background and character traits. The appraisal is based on a thorough study of the individual's previous scholastic record as well as psychological tools such as batteries of tests (mostly locally constructed), rating scales, questionnaires and interviews. Our experience has shown that this guidance function of screening student applicants has proved helpful both to the applicants themselves and the vocational schools. On the part of the latter, screening has meant the admission of only those who were likely to profit most from the training programs. It has meant regulation of enrolment, thereby increasing the opportunities for school personnel to render individualized assistance. On the part of the former, screening has meant avoidance of frustration arising from failure to do satisfactory work and maladjustment, not to mention waste of time and money.

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While still in school preparing for their chosen occupations, students are assisted in solving their vocational, educational, and social-personal problems through counselling, placement, and conferences with the teachers who are active participants in the guidance program. Assistance is based on scientific appraisal of students' needs and problems.

Since the vocational adjustment of the school leavers, both graduates and dropouts, is the yardstick by which the school or the training program is judged, the vocational schools through their guidance programs have taken upon themselves the responsibility of extending assistance in this area too. Thus students receive assistance in finding jobs, in obtaining loans from the Development Bank of the Phillippines and the Philippine National Bank pursuant to the Republic Act 1480, and in getting started in government promoted resettlement programs like the NRRA (National Resettlement Rehabilitation Administration), etc. To facilitate utilization of trained manpower in productive employment, placement units are organised in vocational schools. These units contact business, industrial, agricultural, and fishery establishments, according to the type of training programs they serve, for information on occupational trends, opportunities and requirements as well as employment possibilities for graduates.

Students are not left to themselves after graduation or after they leave school but are followed up in order to determine the nature and extent of their need for assistance.

Research, naturally, is one of the most important guidance services. It is needed for a better understanding of students as well as for a working knowledge of the school's needs and resources. It is needed for evaluation of achievement in relation to goals. The findings of studies form the bases for curricular enrichment and/or redirection and also reorientation of other services of the school that help the young develop their capacities to the fullest extent.

At present, every vocational school in the Phillippines has a guidance counsellor, either officially designated or by local arrangement. All teachers are made active participants through an organizanal set-up that involves them in various guidance services. Observation, however, points to the great need for up-grading further the competencies of all guidance personnel. We are slowly meeting this need through various in-service training programs in guidance and through supervision.

RESEARCH NOTES

Studies on academically gifted boys

In the complex specialized world of today, intellectual resources must be effectively used since not only has the demand for high level talent and trained manpower increased but the reservoir of available talent is limited. The shortage of trained manpower in the scientific and technical fields has resulted in a great concern on the part of educationists about the wastage of talent that occurs at every stage of the educational ladder. If we are to prevent this wastage of human potential, which is to be regarded as the richest resource of a nation, we must make greater efforts to identify our gifted students and provide them opportunities for the development of their potentialities. Therefore research studies regarding their characteristics, problems, needs, home background etc., are most essential.

The CBEVG has recently commenced work on a multi-dimensional research project on academically gifted boys of class XI in the higher secondary schools of Delhi. The project includes a number of studies to be carried out by different members of the staff, who will however be working as a team.

The academically gifted boys have been identified as falling in the top 5 percent of the distribution of scores on Jalota's Test of Intelligence, administered when the boys were in class X. For purposes of comparison an average group has also been identified on the basis of scores extending 5 score points on either side of the mean of the original sample. The gifted group comprises of 105 boys and the average group of 210 boys.

The project seeks to study the work values, interests, vocational aspirations, problems, self-concepts, need patterns and extra-curricular activities of gifted and average boys.

The titles of the studies and some of the problems to be investigated in each of the studies are given below :

1. Work values of gifted boys.
   (i) What types of rewards and returns of work are important to gifted boys ?

(ii) How do the work values of gifted boys differ from those of average boys ?

(iii) What other variables, e.g. socio-economic status, parents' occupation, educational achievement of the boys, etc. are related to the work values of the gifted and average ?

2. Interests of gifted boys.

(i) Do gifted boys differ from average boys with regard to interest patterns as measured by Chatterjee's Non-Language Preference Record ?

(ii) What is the nature of these differences ?

3. Vocational aspirations of gifted boys.

(i) How do the vocational aspirations and plans of gifted boys differ from average boys ?

(ii) Do gifted boys aspire to higher levels of occupations than those of their fathers ?

(iii) In what way does the educational level of the parents influence the level of aspiration of gifted and average boys ?

(iv) Do gifted and average boys from higher status homes have a higher level of aspiration than gifted and average boys from lower status homes ?

4. Extra-curricular activities of gifted boys.

(i) Do the gifted boys differ from the average as regards the number and type of extra-curricular activities ?

(ii) What facilities and time are available to gifted and average boys for pursuing these activities ?

(iii) What are the reasons given for not participating in these activities ?

(iv) What is the influence of socio-economic status on the participation in extra-curricular activities ?

5. Problems of gifted boys and their need for guidance.

(i) How do the gifted boys differ from the average as regards number and kinds of problems ?

- (ii) How do socio-economic status of parents and educational achievement of the boys affect the problems of gifted boys ?
- (iii) What are the guidance needs of the gifted boys ?

6. Self-Concepts of gifted boys.
   - (i) How do the gifted perceive themselves ?
   - (ii) What kind of persons do they aspire to be ?
   - (iii) How do they think they are perceived by others ?
   - (iv) In what ways are their self-concepts related to their curricular achievements and family back ground ?

Khorshed Wadia
CB EVG

NEWS FROM HERE AND THERE

Bihar

The fifth annual conference of the Bihar Council of Guidance and Personnel was held from the 29th June to 1st July, 1964. The Conference was attended by school counsellors from all over the State. Mr. G.E.T. Whiting, International Labour Organisation expert on Vocational Guidance who was the Chief Guest, stressed the need for Vocational Guidance services for school leavers in all high and higher secondary schools.

* * * *

In order to discuss the various issues pertaining to the development of Guidance programmes in schools and employment exchanges, the Guidance workers from the employment services and schools of the state got together in a workshop on Vocational Guidance organized by the State Bureau of Educational and Vocational Guidance, in collaboration with the Directorate of Employment, Bihar. The deliberations of the workshop were guided by Mr. Whiting. The points highlighted at the workshop were the need for closer contacts between parents and guidance personnel as well as employment officers and school guidance personnel, and more and better publicity to the school guidance programmes. The need for increasing the strength of state bureau staff was also emphasized.

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A three-week training course for Career Masters was conducted by the State Bureau of Educational and Vocational Guidance. The course was attended by twenty Catholic sisters who are working as teachers in mission schools.

* * * *

A programme of Vocational Guidance was organized at Loyola School, Jamshedpur by the SBEVG in collaboration with the Education Officer, TISCO, and the Sub-regional Employment Exchange, Jamshedpur. The programme was part of the pilot project on vocational guidance for school leavers being conducted by the Directorate-

General of Employment and Training in selected schools in different parts of the country. Mr. Whiting participated in the programme.

* * * *

A meeting of Principals and teachers of high and higher secondary schools was also held at the Loyola School, Jamshedpur, under the presidentship of the Education Officer, TISCO. Dr. De, Director, State Bureau of Educational and Vocational Guidance, Bihar and Mr. Whiting were the speakers.

* * * *

Delhi

A Physical, Medical and Rehabilitation Unit has been set up in the Department of Preventive and Social Medicine of the All-India Institute of Medical Sciences. The unit which is concerned with the rehabilitation of physically handicapped persons has on its staff a vocational counsellor in addition to the team of specialists comprising of a psychiatrist, occupational therapist, physio-therapist, psychologist and medical social worker. The counsellor's main function will be to assist the handicapped patients to find suitable jobs.

Kumari S. Chaddha, Counsellor in the State Bureau of Educational and Vocational Guidance, Rajasthan, has been appointed Vocational Connsellor in this newly established unit.

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The Association for Moral and Social Hygiene, Delhi Branch, has set up a Family Life Institute offering services in the area of marriage and family adjustment. To start with, the Institute is offering the following services :

1. Counselling in the area of marriage and family living.
2. Lecture series on education for family living.
3. Information corner for subjects like marriage, family, sex and adjustment.

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The Delhi Guidance Association arranged a talk on "Educational Guidance and Social Change" by Dr. B. Kuppuswamy, Research Consultant, India-International Centre.

* * * *

Gujarat

During the year 1963-64 the Student Counselling Centre, Faculty of Education and Psychology, M.S. University of Baroda, organized a three-day workshop in guidance for secondary school teachers in collaboration with the Extension Services Department. Besides the usual activities organized for students, the Centre has also undertaken work on the development of psychological tools. An Aptitude Test for selection of Technology and Engineering students is expected to be available for selection Purposes soon. Work on translation and adaption of the Wechsler Adult Intelligence Scale continues. A Problem Checklist has also been developed by the Centre and is ready for use.

The Centre has also conducted a study on prediction of success in the Home Science Course.

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Madhya Pradesh

The Psychological Test and Guidance Centre at De Sales College, Nagpur, is conducting its second diploma course. Seven trainees are undergoing the training.

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Maharashtra

In an attempt to make guidance services available to more schools the St. Xavier's Institute of Education, Bombay has introduced the Cooperative Scheme for guidance services in schools. This scheme is specially meant for the benefit of those schools which are unable to provide these services on their own, due to a lack of finances or facilities. To begin with, the services will be limited to students of standards VII and X and will be offered to groups of schools which will make a total of 1000 pupils consisting of 500 each from standards VII and X. A school will contribute Rs. 1000/- in favour of 200 pupils.

The diploma course in Vocational Guidance conducted by the Institute commenced in July.

* * * *

An Educational and Vocational Guidance Bureau has been established by the Jana Seva Sangh, Bombay as part of their Mahatma Gandhi Vidya Mandir Scheme. The Bureau will provide guidance services to the students of various institutions managed by the Seva Sangh. Sh. R.D. Desai has been appointed as director.

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Smt. Tara Mody, who received the diploma in Educational and Vocational Guidance in May from the Central Bureau of Educational and Vocational Guidance has joined the Institute of Vocational Guidance, Bombay, as research assistant.

* * * *

Rajasthan

The State Bureau of Educational and Vocational Guidance conducted a three-week Career Masters course in June-July, 1964 for 55 teachers. The total number of trained Career Masters in the State is 196.

Janak Sethi
CBEVG

ABOUT OURSELVES

We congratulate Shri R.P. Bhatnagar, Counsellor, on his new appointment as Reader in the Regional Training College, Ajmer and welcome Shri N.K. Jain who has joined the staff of the Bureau as Technical Assistant (Statistics).

* * * *

The Sixth Diploma Course in Educational and Vocational Guidance commenced on the 15th July, 1964. Twenty one trainees joined the course, of whom 10 are state nominees. An orientation programme including visits to the various departments of the NIE was arranged for them during the first week. The staff gave a tea to welcome the trainees.

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The Bureau has recently brought out a brochure entitled Fire Fighters, Police and Related Workers in the series Vyavsaye Parichay Mala. This is a priced publication (Re. 0. 55 p) and can be obtained from Publication Unit, NCERT, 114, Sunder Nagar, New Delhi.

* * * *

Shri Baqer Mehdi, Senior Psychologist, and Kumari Evelyn Marr, Counsellor, have resumed their duties in the Bureau on their return from the U.S.A. Shri Mehdi was one of seven persons sent from the National Institute of Education to Teachers College, Columbia University, under the US Agency for International Development Participant Program 1963-64 to study the special programmes for education of the gifted in the United States. Besides taking a Masters degree from Teachers College, Shri Mehdi observed a number of programmes for the gifted in different parts of the country.

Kumari Evelyn Marr who was on study leave for three years, obtained the Ph.D. degree majoring in the area of Personnel Psychology. She also worked as a Research Assistant in the Career Pattern Study (one of the projects of the Horace Mann—Lincoln Institute of School Experimentation, Teachers College Columbia University), which is directed by Dr. Donald E. Super.

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A team of Amercian members of the International Council of Psychologists led by Dr. Henry David, Associate Director, World Federation for Mental Health, Geneva, visited the Bureau. An orientation programme consisting of talks on the status of guidance in India and the functions of the Central Bureau, as well as a display of the Bureau's publications and some Indian tests, was arranged for them.

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Dr. Edwin Levy of the Department of Student Services, City College, New York visited the Bureau to acquaint himself with its activities. He also delivered a talk on Student Personnel Services in American Universities to the staff and trainees.

Sayyara Qayoom
CBEVG

Guidance Review
Vol. 2, No. 4

BOOK REVIEWS

Psychological Counselling in India by J.M. Fuster. Madras : Macmillan & Co. Ltd., 1964, pp. 261.

Considering the very few books on the subject written in India, and dealing with Indian conditions, J.M. Fuster's book is very welcome.

Various areas of study related to counselling are discussed. Some idea of the scope may be obtained by listing the titles of a few of the 17 chapters : The Need for Psychological Counselling and its Present Position in India, The Training of Counsellors, The Nature and Genesis of Abnormal Behaviour, Personality Dynamics, The Counselling Process, Research in Psychological Counselling and the Q-Technique, and Sex Education in India. An ambitious undertaking for a Book of 261 pages. Most of the chapters cover several topics. For instance, the chapter on personality dynamics has the following sub-divisions : The unconscious, Personality dynamics according to Freud, Defence mechanisms, The formation of complexes, Evaluation of Freud, Other views on personality dynamics, Taking the whole person, Conclusion.

By far the most valuable part of the book is the section relating to work done in India. Thus the chapters on the need for counselling, personality tests in India, and research are likely to be of interest to all guidance workers in this country. One could not help wishing that the author had concentrated on these areas instead of attempting to be all inclusive.

Dealing with a large number of topics in a small book necessarily imposes limitations. Although the author's wide acquaintance with the literature and mastery of the subject is evident, most topics are dealt with very briefly, and often the presentation of diverse points of view is lacking. The resulting discussions are not likely to enlighten the uninitiated and would not be of interest to those well versed in the field. At times they may also be misleading. The present reviewer was particularly disturbed by the chapter on the counselling process.

Reading it counselling seems to be much too easy, and it appears that its effectiveness has been established beyond doubt. This is more than is claimed by psychologists working in countries where much more work has been done in the field.

Inspite of its limitations, because of the illustrations drawn from work with Indian students and the reporting of certain researches carried out in this country, the book is a contribution in a much needed area.

Evelyn Marr*

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*Dr. Evelyn Marr is Counsellor in the Central Bureau of Educational and Vocational Guidance, Delhi.

Employment Survey of the Alumni of Delhi University—Report of the Committee of Direction. New Delhi : Directorate General of Employment and Training, Ministry of Labour and Employment, Government of India, 1962. pp. 198. Rs. 6. 50.

The controversy regarding the supremacy of the cultural versus the vocational objective in education has been raging in India for long. In the past few years, however, the vocational objective has received more emphasis especially in secondary and university education. This has become imminent in view of the unemployment and misemployment of the educated and also in the context of the planned economy towards which we are now rapidly heading. In the case of university education the vocational aim was highlighted as far back as 1948-49 by the University Education Commission.

Despite this trend, it has not been possible to gear university education to this end. The need for factual data on the basis of which desired reforms could be effected has been long felt. The survey of the alumni of Delhi University, undertaken in 1958 jointly by the University, the Planning Commission and the Ministry of Labour and Employment, is the first attempt to supply the necessary information.

The objectives of the survey as stated by the Committee of Direction were "(a) to investigate the relationship between the type of education at the university and the occupations which the graduates subsequently take ; (b) to consider how far the instruction imparted in different departments and faculties is useful in the job performance of graduates ; (c) to study the occupational thinking, the factors determining the choice of subjects and career patterns of university graduates." The 198 page report is the fruit of this survey.

The report contains ten chapters and two appendices. The first two chapters are devoted to the statement of objectives, and operation of the survey. The next two chapters describe the coverage and the characteristics of the alumni from whom data were obtained. All the alumni who obtained any degree of the university in 1950 or 1954 were the subjects. However data could be obtained only from 42.9 per cent of the 1950 group and 56.2 per cent of the 1954 group. The following four chapters report the results pertaining to education, employment, occupational choices, earnings and adjustment of the alumni. The last chapter contains a summary of the findings. There are 128 tables suitably introduced in the text and intelligently interpreted.

The findings reveal the overwhelming amount of wastage in science education, as only about 40 per cent of the alumni who passed out of the school with science subjects pursued higher education in scientific and allied subjects such as nursing, medicine and technology. Fifty to 58 per cent of the alumni had breaks in their educational careers. In the case of 20 to 33 per cent, the cause of the interruption was failure in examinations. More than 50 per cent of the alummi got first employment from 3 to 13 months after the termination of education. About 25 per cent were unemployed for more than one year. Unemployment was highest among the holders of Masters degree in languages, history, political science and philosophy. Twentyone to 33 per cent of the alumni reported that they were employed outside the field of specialisation. The proportion of employment outside the field of specialisation was greater among those with B.A. Hons and M.A. degrees in subjects like economics, mathematics, commerce, political science, history and philosophy. The trend to shift to the field of specialisation was noticeable with the passage of time. About 60 to 68 per cent of the alumni changed their employment once or more often. For 14 to 33 per cent of these alumni the change was accompanied by improvement in emoluments or status or both. Twenty-five to 40 per cent were employed as clerical workers even 4 to 8 years after they had left the university. About one-sixth of the alumni went through their entire education career without any vocational aim. Almost an equal number had no vocational aim at the time of joining college. Nearly 40 per cent of those who had an aim changed it at one stage or the other. About 50 per cent of the alumni stated that they were dissatisfied or moderately satisfied with their current employment. However satisfaction appeared to increase with the passage of time.

The report is full of facts and figures which will be of considerable interest to those concerned with education, employment, economic planning and vocational guidance. Treatment of the data pertaining to the two groups of alumni according to 18 educational categories in most of the tables presents a problem of comprehension to the reader. Perhaps it would have been better to divide the report into sections each pertaining to a particular educational category, in addition to the treatment of the data in general terms.

The authors have left it to the reader to find out the implications. A summary of conclusions has been given in the final chapter of the report, but it would have been better if the investigators had clarified the implications of the findings for the reform of university education.

C.M. Thukral*

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*Shri C.M. Thukral is Technical Assistant in the Central Bureau of Educational and Vocational Guidance, Delhi.

ABSTRACTS

Ralph F. Berdie and Albert B. Hood, Personal Values and Attitudes as Determinants of Post-High School Plans. *The Personnel and Guidance Journal*, Vol. 42, No. 8, pp. 754-759.

The objective of the study was to explore some of the social and personal attitudes, values and experiences of high school students which are directly related to social behaviour. The sample comprised 44,756 high school male and female seniors of metropolitan, non-farm and farm areas. A questionnaire concerning social relations and social conformity habits was administered to the group.

The study revealed significant differences between the sexes, students from different geographic regions and students with varying post-high school plans. Girls expressed themselves to be more sociable than boys. Boys also revealed less social conformity, being more often in trouble in the sphere of interpersonal relations with authority figures. It was found that the farm students differed from the non-farm students in their social skills and attitudes. Boys and girls from farm areas expressed more difficulties in social relations than did the non-farm boys and girls. Farm boys expressed significantly greater faith in their school grades as an accurate reflection of their ability as compared to non-farm boys. The former also preferred a fair income with a fairly safe job.

Differences between college planners and job seekers were fairly significant. College planners were found to be more sociable, less self conscious and more conforming to the standards set by the family and other authority figures, e.g. school principal. But both college planners and job seekers expressed satisfaction in their social relations.

Willingness to take risks on jobs was expressed in the same proportion by the two groups when the job offered a fair income and moderate security. Although job security was emphasized by both the groups, twice as many of the job seekers preferred a low income, secure job than did the college planners. The college planners more frequently tended to believe in school grades as an accurate indication of their ability.

The marked differences found between the values and attitudes of college planners and job seekers, it was concluded, could be attributed to either their ability or socio-economic status or both. Students with similar ability and socio-economic status were found to cherish similar personal and social values and attitudes.

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Robert A. Ellis and W. Clayton Lane, Structural Supports for Upward Mobility, *American Sociological Review*, Vol. 28, No. 5, 1963, pp. 743-56.

This study sought to determine the sources of support for the college plans of lower-class boys. The subjects were 194 matriculates who had enrolled themselves in a high status university, thus giving evidence of being involved in the process of upward mobility.

It was found that the frequency with which the father was considered the more important influence on the youth's plans for college tended to decline with class especially in the lower strata. The finding favoured the role of the mother as the most important factor in upward mobility within the nuclear family of lower status. In lower class the mothers outranked fathers in their educational and occupational attainments.

The number of nonfamilial influences was found to increase along with diminishing social status. The high school teachers gained the most predominent position. In the lower class, as against the upper class, the teachers were found to be twice as likely as parents to have an important role in influencing the student's decision to go to college.

The role of other adults such as ministers, family friends, previous employers, family physicians, etc. was found to be no less significant. Lower class students mentioned these individuals twice as often as those from upper and middle classes. High school friends were found to exercise an indirect influence by encouraging the development of those motives, attitudes and social skills appropriate to middle and upper class groups. Lastly, the lower class students suffered from the disadvantage of not having had enough learning opportunities such as those offered by travel and work experiences which were found to have an important bearing on the choice of a college major in the case of middle and upper class boys.

It seems clear from the study that lower-status families are actively invoved in the mobility plans of their offspring. However there is a sharp reversal in the pattern of parental authority in lower-class homes, the mother being the dominant influence in the mobility process.

* * * *

Edward Frankel, Characteristics of Working and Non-working Mothers among Intellectually Gifted High and Low Achievers. *The Personnel and Guidance Journal*, Vol. 42, No. 8, 1964, pp. 748-56.

The investigation attempts to compare working and non-working mothers of intellectually gifted high and low achievers on some factors. It was hypothesized that factors like socioeconomic status, frequency of employment, occupational level, education, length of employment, stability of family patterns, etc. could contribute positively or negatively to academic achievement of their sons.

The sample included 29 pairs of boys matched on Pintner IQ, each pair consisting of one high achiever and one low achiever. The sample of working mothers consisted of those belonging to top and bottom three occupational categories as defined by the Dictionary of occupational Titles and who had been working thirty hours a week for at least two years.

A measure of the socioeconomic status of the two groups, viz, high and low achievers, revealed no significant differences between the two groups. The frequency of maternal employment was significantly greater among the low achievers than among the high achievers. The occupations of the working mothers of the two groups were also significantly different, the mothers of low achievers being more frequently employed in low level non-professional occupations e.g. clerical, manual, etc. whereas those of high achievers were in high-level professional occupations. The employment of mothers of the low achievers was found to be relatively more recent, presenting a sort of mid-career handicap to their sons. The working mothers of the high achievers had obtained more education than the non-working mothers of the same group as well as the working and non-working mothers of low achievers. But the differences between educational level of working and non-working mothers of low achievers were not significant. Lastly, the number of working mothers from broken homes was not significantly different in the two groups. On the whole, there were more working mothers in the low achievement group, they had lesser education and they belonged to lower level of occupations. The fact that the working mothers of high achievers were employed in professional occupations mostly as teachers may have contributed to the better achievement of this group.

Swadesh Juneja
CBEVG

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